DVD Player

DVP3560K

Service

DVP3560K/55

Service

Service

Service Manual

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CLASS 1 LASER PRODUCT

Published by SL - 952 BU AVM Printed in The Netherlands Subject to modification

GB 3141 785 34640

Version 1.0

PHILIPS

Especificaciones

Nota

- Las especificaciones y el diseño quedan sujetos a modificaciones sin previo aviso.

USB
- Compatibilidad: USB (2.0) de alta velocidad
- Clases: UMS (clase de almacenamiento masivo USB)

Video
- Sistema de señal: PAL/NTSC
- Salida de video compuesto: 1 Vpp ~ 75 ohmios
- Salida de video por componentes: 0,7 Vpp ~ 75 ohmios
- Salida HDMI: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p

Audio
- Salida estéreo analógica
- Relación señal/ruido (1 kHz): > 90 dB (ponderado A)
- Rango dinámico (1 kHz): > 80 dB (Ponderado A
- Interferencia (1 kHz): > 80 dB
- Distorsión / ruido (1 kHz): > 65 dB
- MPEG MP3: MPEG Audio L3
- Salida digital
  - Coaxial
- Salida HDMI

Unidad principal
- Dimensiones (An x Al x Pr): 360 x 39 x 209 (mm)
- Peso neto: 1,4 kg aproximadamente

Energía
- Clasificación de la fuente de alimentación: 110 - 240 V, 50/60 HZ
- Consumo de energía: <10 W
- Consumo de energía en el modo de espera: < 0,45 W

Accesorios incluidos
- Control remoto y baterías
- Cable HDMI
- Cables de audio/video
- Cable de suministro eléctrico de CA
- Adaptador de cable de alimentación
- Manual del usuario

Especificación de láser
- Tipo: láser semiconductor InGaAlP (DVD), AlGaAs (CD)
- Longitud de onda: 658 nm (DVD), 790 nm (CD)
- Potencia de salida: 7,0 mW (DVD), 10,0 mW (VCD/CD)
- Divergencia de haz: 60 grados

Safety instruction, Warning & Notes

Safety instruction

1. General safety

Safety regulations require that during a repair:

. Connect the unit to the mains via an isolation transformer.

. Replace safety components indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, you must return the unit in its original condition. Pay, in particular, attention to the following points:

. Route the wires/cables correctly, and fix them with the mounted cable clamps.

. Check the insulation of the mains lead for external damage.

. Check the electrical DC resistance between the mains plug and the secondary side:

1) Unplug the mains cord, and connect a wire between the two pins of the mains plug.
2) Set the mains switch the "on" position (keep the mains cord unplug).
3) Measure the resistance value between the mains plug and the front panel, controls, and chassis bottom.
4) Repair or correct unit when the resistance measurement is less than 1MΩ.
5) Verify this, before you return the unit to the customer/user (ref. UL-standard no. 1492).
6) Switch the unit "off", and remove the wire between the two pins of the mains plug.

2.Laser safety

This unit employs a laser. Only qualified service personnel may remove the cover, or attempt to service this device (due to possible eye injury).

Laser device unit

Type : Semiconductor laser GaAlAs

Wavelength : 650nm (DVD)

: 780nm (VCD/CD)

Output power : 7mW (DVD)

: 10mW (DVD /CD)

Beam divergence: 60 degree

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

Warning

1.General

. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handing during repair can reduce life drastically. Make sure that, during repair, you are at the same potential as the mass of the set by a wristband with resistance. Keep components and tools at this same potential. Available ESD protection equipment:

1) Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
2) Wristband tester 4822 344 13999.

. Be careful during measurements in the live voltage section. The primary side of the power supply , including the heat sink, carries live mains voltage when you connect the player to the mains (even when the player is “off”!). It is possible to touch copper tracks and/or components in this unshielded primary area, when you service the player. Service personnel must take precautions to prevent touching this area or components in this area. A “lighting stroke” and a stripe-marked printing on the printed wiring board, indicate the primary side of the power supply.

. Never replace modules, or components, while the unit is “on”.

2. Laser

. The use of optical instruments with this product, will increase eye hazard.

. Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.

. Repair handing should take place as much as possible with a disc loaded inside the player.

. Text below is placed inside the unit, on the laser cover shield:

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

Notes: Manufactured under licence from Dolby Laboratories. The double-D symbol is trademarks of Dolby Laboratories, Inc. All rights reserved.

Notes

Lead-Free requirement for service

INDENTIFICATION:

Regardless of special logo (not always indicated)

One must treat all sets from 1.1.2005 onwards, according next rules.

Important note: In fact also products a little older can also be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  - To reach at least a solder-temperature of 400°C,
  - To stabilize the adjusted temperature at the solder-tip
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed
  solder alloy types (leaded and lead-free). If one cannot avoid, clean carefully the
  solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
  - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use highest lead-free temperature profile, in case of doubt)
  - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. This will be communicated via AYS-website.
  Do not re-use BGAs at all.
- For sets produced before 1.1.2005, containing leaded soldering-tin and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website:
  www.atyourservice.ce.Philips.com

You find more information to:

BGA-de-/soldering (+ baking instructions)
Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

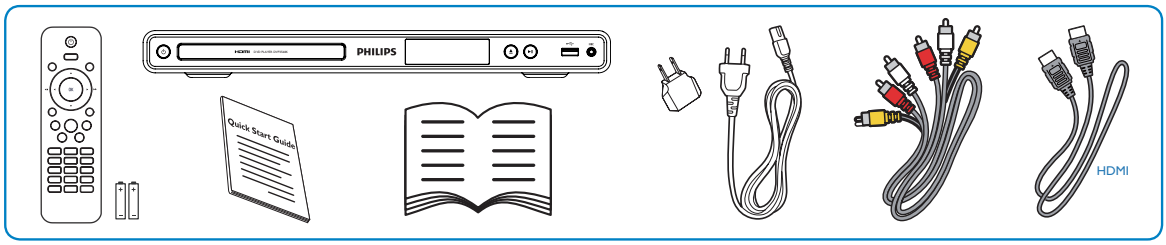
QSG for DVP3560K/55:

Register your product and get support at

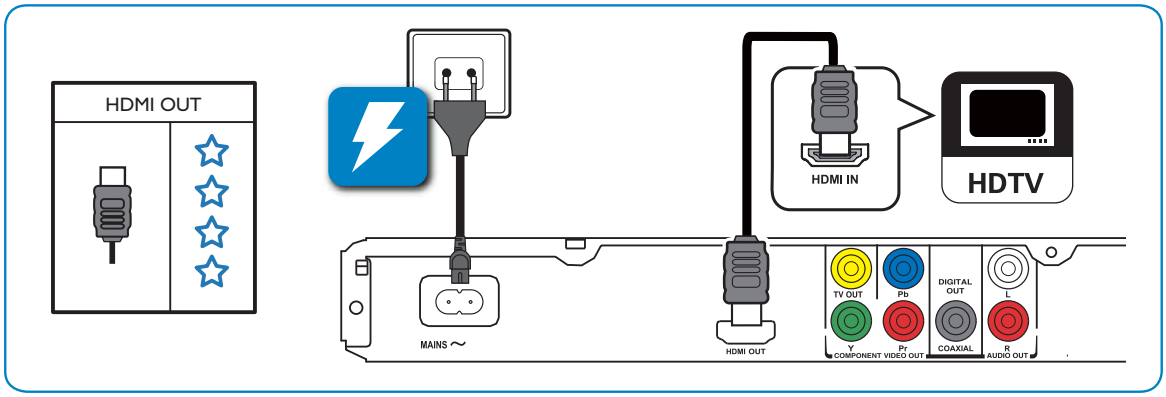
www.philips.com/welcome

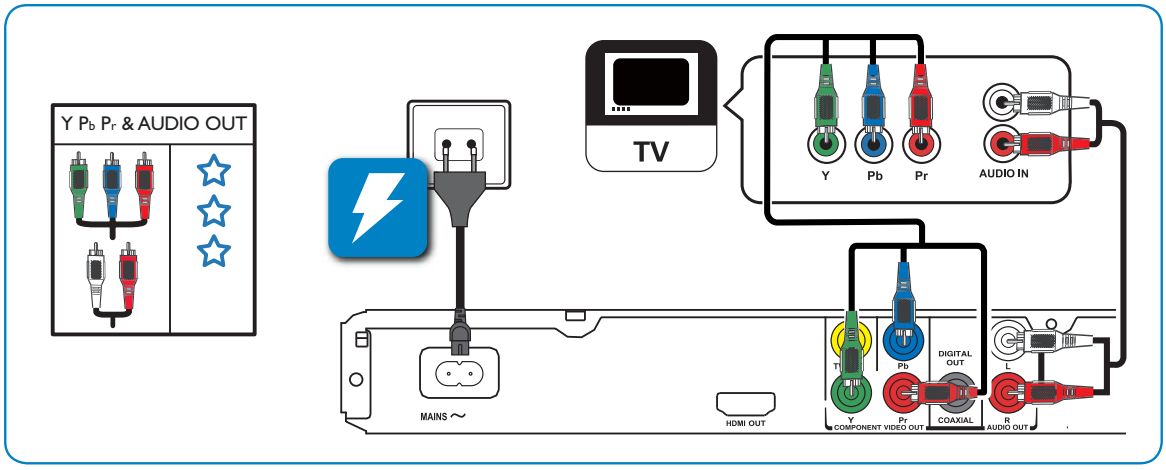
DVP3560K

PHILIPS



1





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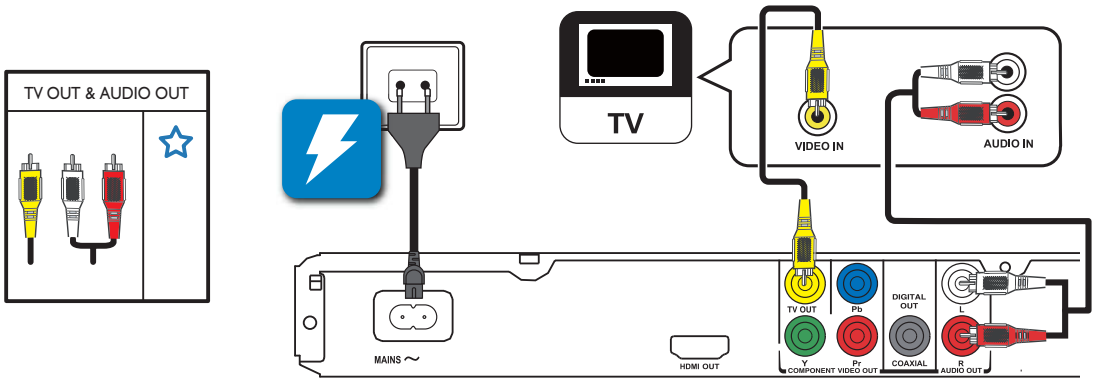
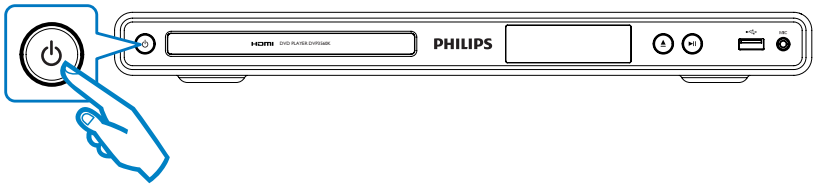


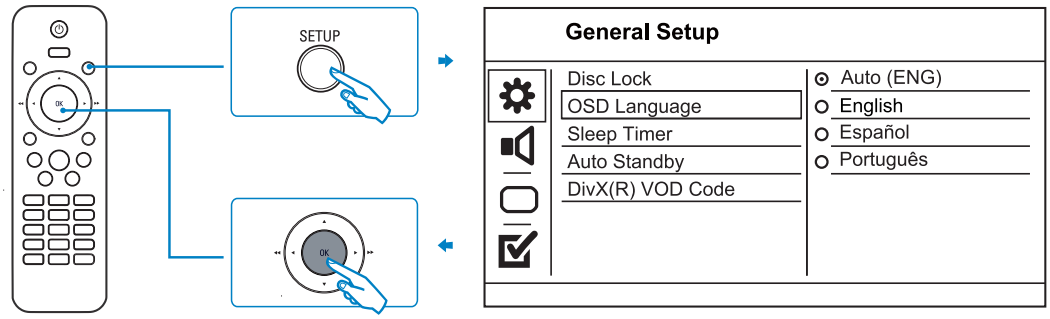
2

1



2

3



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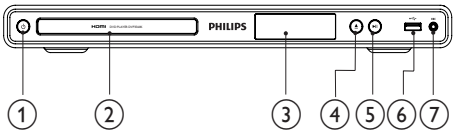
DVP3560K_55_QSG_V1.0

Be responsible
Respect copyrights

72-P3560K-QSGB1

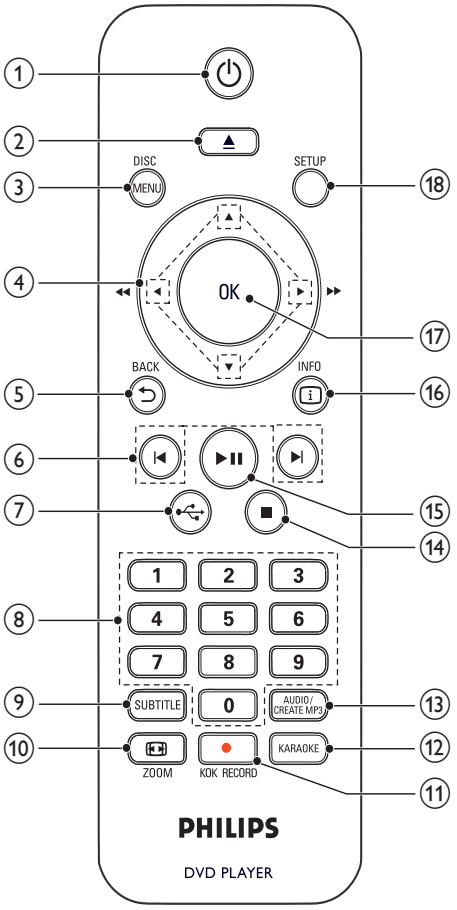
Descripción general del producto

Unidad principal



1. ⏻ **(Modo de espera encendido)**
   - Enciende el reproductor de DVD o pasa al modo de espera.
2. **Compartimiento para el disco**
3. **Panel de visualización**
4. ⏏ **(Abrir/Cerrar)**
   - Abre o cierra la bandeja de discos.
5. ▶❚❚ **(Play/Pause)**
   - Inicia, hace una pausa o reanuda la reproducción del disco.
6. **Toma** ⇠ **(USB)**
   - Conecta una unidad USB Flash.
7. **MIC**
   - Conexión de micrófono.

Control remoto



1. ⏻
   - Enciende la unidad o pasa al modo de espera.
2. ⏏
   - Abre o cierra la bandeja de discos.
3. DISC MENU
   - Accede o sale del menú del disco.
   - Pasa al modo de disco.
   - Durante la reproducción de una secuencia de diapositivas de fotos, permite alternar entre el modo de diversión y el modo simple.
   - Para VCD y SVCD, activa o desactiva el control de reproducción PBC (del inglés Playback Control).
4. ▲▼◀▶
   - Navega a través de los menús.
   - Avanza (▶) o retrocede (◀) rápidamente.
   - Avanza (▲) o retrocede (▼) lentamente.
5. ⮌ BACK
   - Regresa al menú de pantalla anterior.
6. ⏮/⏭
   - Pasa al título, capítulo o pista anterior o siguiente.
7. ⇠
   - Pasa al modo de USB.
8. **Botones numéricos**
   - Selecciona la reproducción de un elemento.
9. SUBTITLE
   - Selecciona el idioma de los subtítulos en un disco.
   - Permite acceder al menú de copia y eliminación de archivos de audio USB.
10. ZOOM
    - Ajusta el formato de la imagen a la pantalla del televisor.
    - Acerca o aleja la imagen.
11. ● KOK RECORD
    - Graba la voz y la música durante el karaoke en un dispositivo flash USB
12. KARAOKE
    - Accede o sale del menú de configuración de karaoke.
13. AUDIO/CREATE MP3
    - Selecciona un canal o idioma de audio en un disco.
    - Permite acceder al menú de creación de archivos MP3.
14. ■
    - Detiene la reproducción.
15. ▶❚❚
    - Inicia, hace una pausa o reanuda la reproducción del disco.
16. INFO
    - En discos: permite acceder a las opciones de reproducción o muestra el estado actual del disco.
    - Para diapositivas, muestra una vista en miniatura de archivos de fotos.
17. OK
    - Permite confirmar la entrada o selección.
18. SETUP
    - Accede o sale del menú de configuración.

Mechanical and Dismantling Instructions

Dismantling Instruction

Detailed information please refer to the model set.

The following guidelines show how to dismantle the player.
Step1: Remove 5 screws around the Top Cover, and then remove the Top Cover (Figure 1).

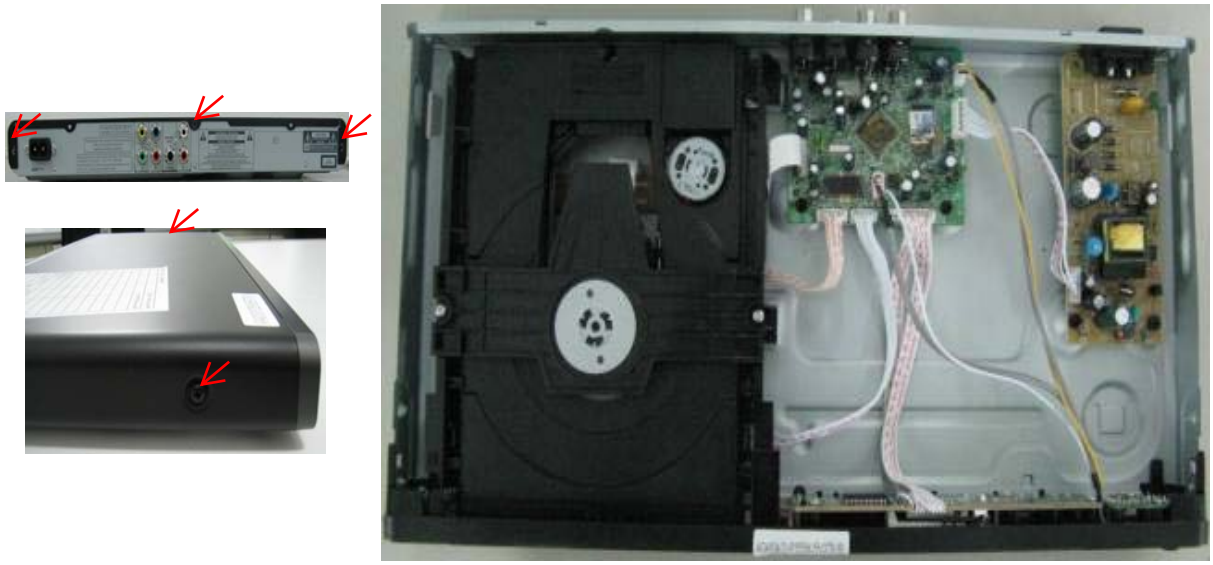


Figure 1

Step2: If it is necessary to dismantle Loader or Front Panel, the Front door should be removed first. (Figure 2)
Note: Make sure to operate gently otherwise the guider would be damaged.

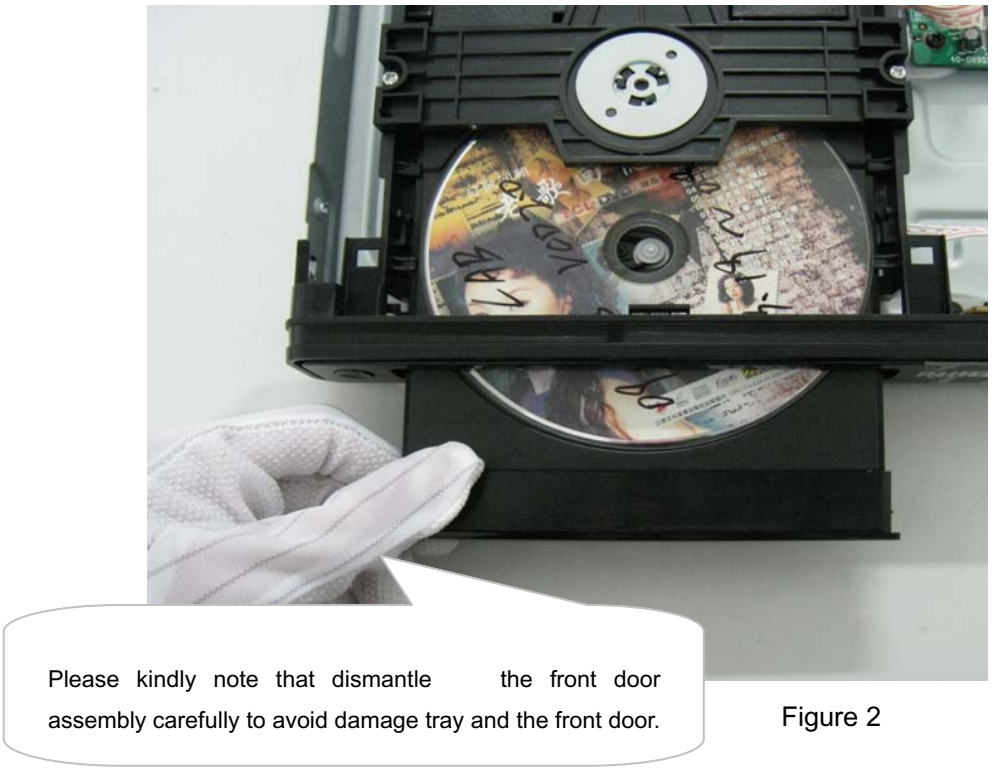


Figure 2

Mechanical and Dismantling Instructions

Dismantling Instruction Detailed information please refer to the model set.

Step3: If the tray can't open in normal way, you can make it through the instruction as below (Figure 3).
Note: Make sure to operate gently otherwise the guider would be damaged.

Figure 3

Step4: Dismantling Front Panel, disconnect the connectors (XP80, XP7, XP476), need release 3 snaps of Front Panel & 2 snaps of bottom cabinet , then gently pull the Panel out from the set. (Figure 4 - Figure 6)

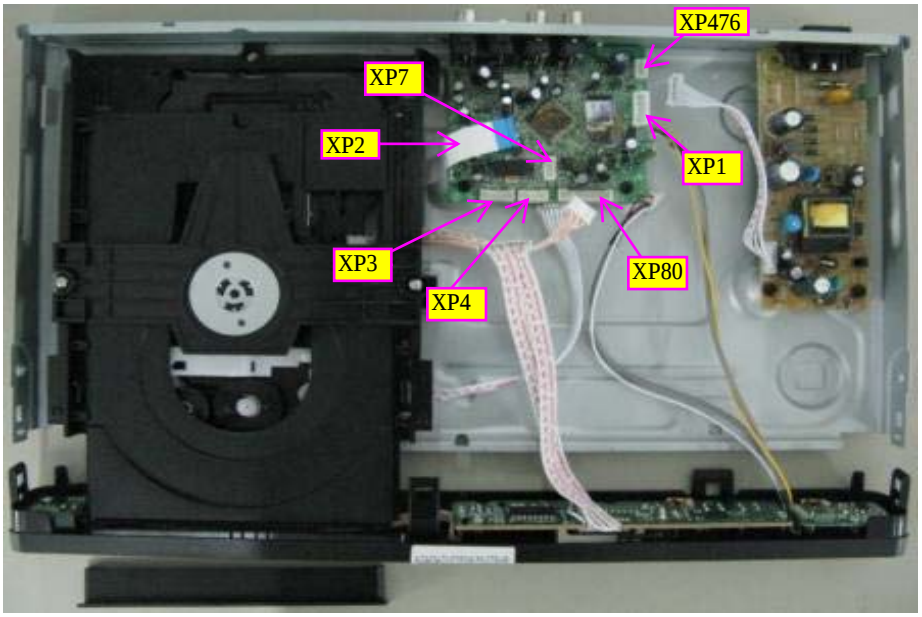


Figure 4

Mechanical and Dismantling Instructions

Dismantling Instruction

Detailed information please refer to the model set.

Step5: Dismantling Loader, disconnect the 3 connectors (XP2, XP3, XP4) aiming in the below figure, and remove 1 screw that connects the loader and the bottom cabinet. (Figure 5)

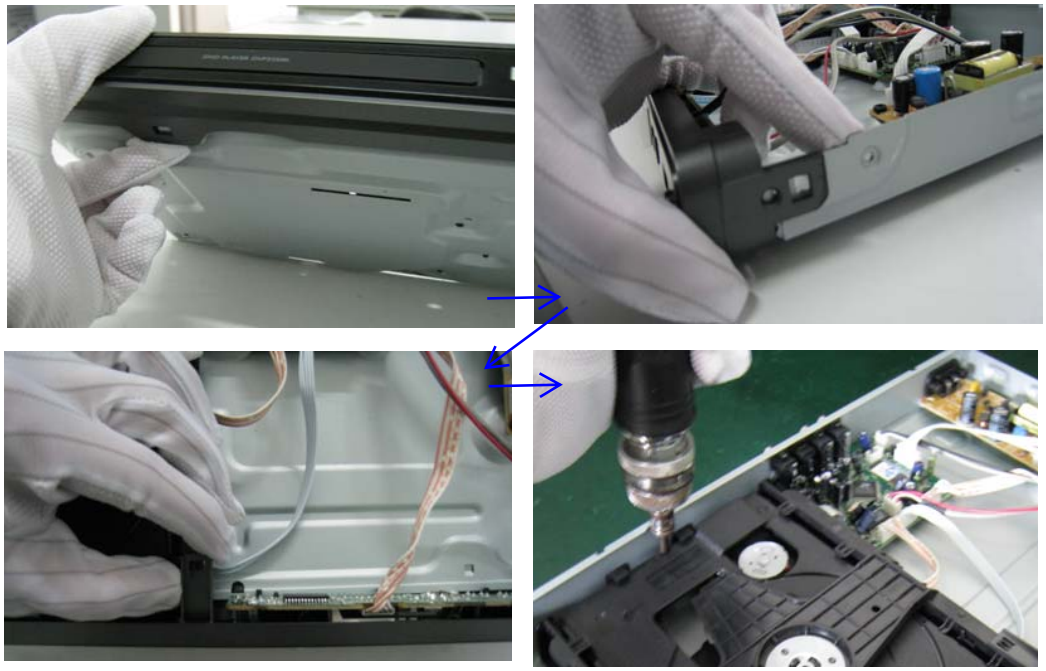


Figure 5

Step6: Dismantling Main Board, first disconnect the connector (XP1), and then remove 4 screws. (Figure 6)

Step7: Remove the 4 screws on Power Board to dismantle the Power Board. (Figure 6)

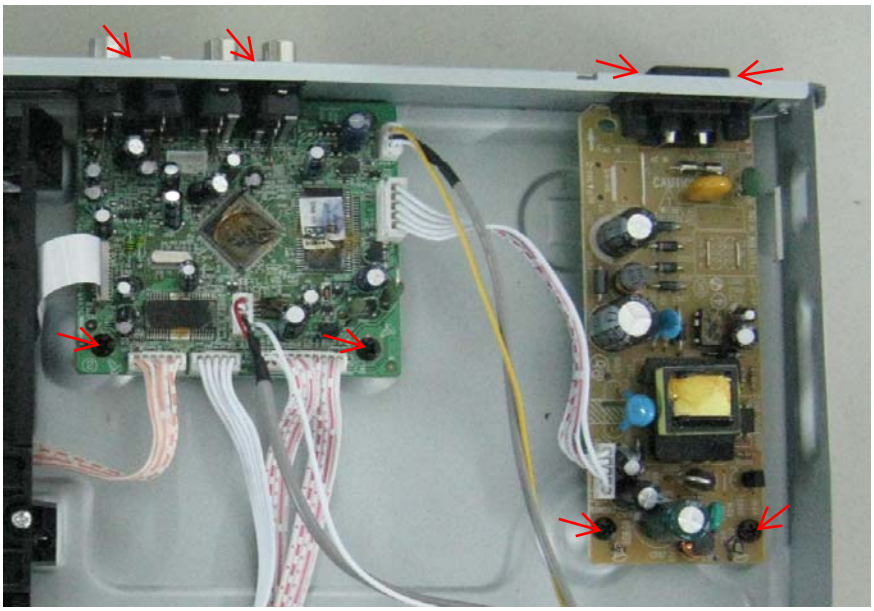


Figure 6

Softeware upgrade and region code change

Preparation to upgrade software

1) Power on the set and open the tray, then press "5""5" on remote control to check the SW File Name.
2) Start the CD Burning software and create a new CD project (Data Disc) with the following setting:
   Label: DVP3XXX(K) (No need the label name)
   SW File Name: DVPXXXX(K)_XX.bin
   Note: It is required to keep the SW file name accord.
3) Burn the data onto a blank CDR

A. Procedure for software upgrade:

A) Upgrade software via CDR:

1) Power on the set and insert the prepared Upgrade CDR.
2) The set will starts reading disc & response with the following display TV screen:
   Upgrade file detected
   Upgrade ?
   Press PLAY to start
3) Press "PLAY" button to confirm, then screen will display:
   Upgrade file detected / Do not power off / File Copying → Upgrade file detected / Do not power off / Upgrading
4) The upgraded tray will automatically open when file copying completed, then take out the disc.
5) About 1 minute later, the trace will automatically close when upgrading completed.

B) Upgrade software via USB Flash Drive:

1) Create the correct software file onto the USB flash drive.
2) Power on the set and keep no disc, then insert it to the USB jack of the front panel.
3) When the DVD player switchs to the USB state automatically, pls follow the instructions on the TV screen to confrim the upgrade operation.

B. Read out the software versions to confirm upgrading

1) Power on the set and press "Setup" button on the remote control.
2) Press "1""3""7""9" button or press down cursor on remote control to select "Preferences" and press right & down cursor to select "Version Info".

   The software version and other informations will be displayed on the TV screen as follows:

Version	XX.XX.XX.XX (Main version)
Sub-Ver	XX.XX.XX.XX (version of applicaton software)
8032	XX.XX.XX.XX
Servo	XX.XX.XX.XX (software version of Servo)
RISC	XX.XX.XX.XX
DSP	XX.XX.XX.XX
Region Code	X

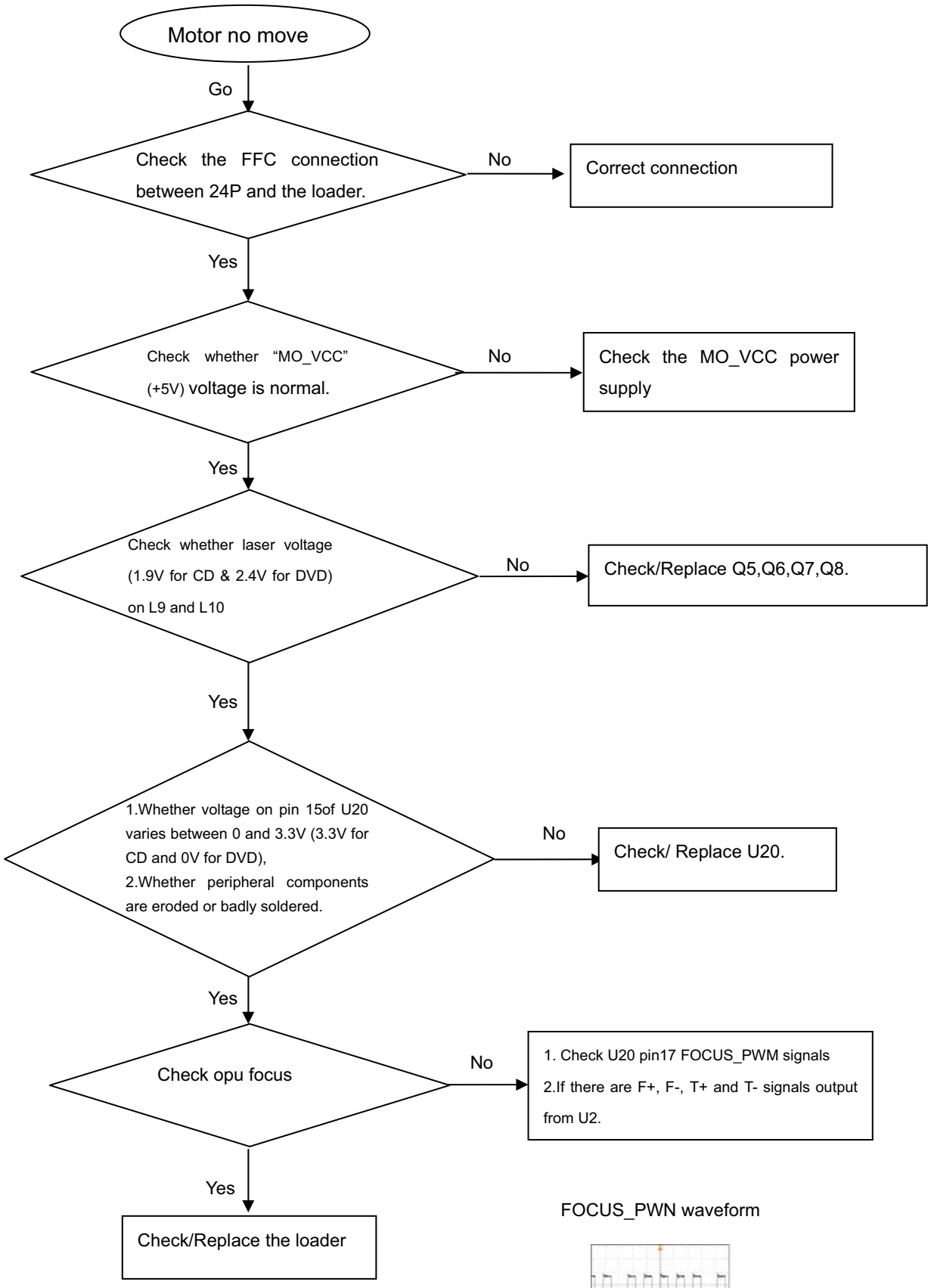
Caution: The set must not be power off during upgrading, Otherwise the Main board will be damaged entirely.

Region Code Change

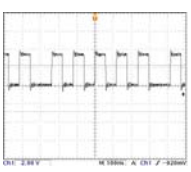
1) Power on the set and open the tray door;
2) Press the "Setup" button on the remote control, then the setup interface will be displayed on the TV screen;
3) Move the down cursor on remote control to select "Preferences" and press "1""3""8""9""3""1" on the remote control;
4) Then move the up or down cursor to select the region code.

Note: Restart after above steps.

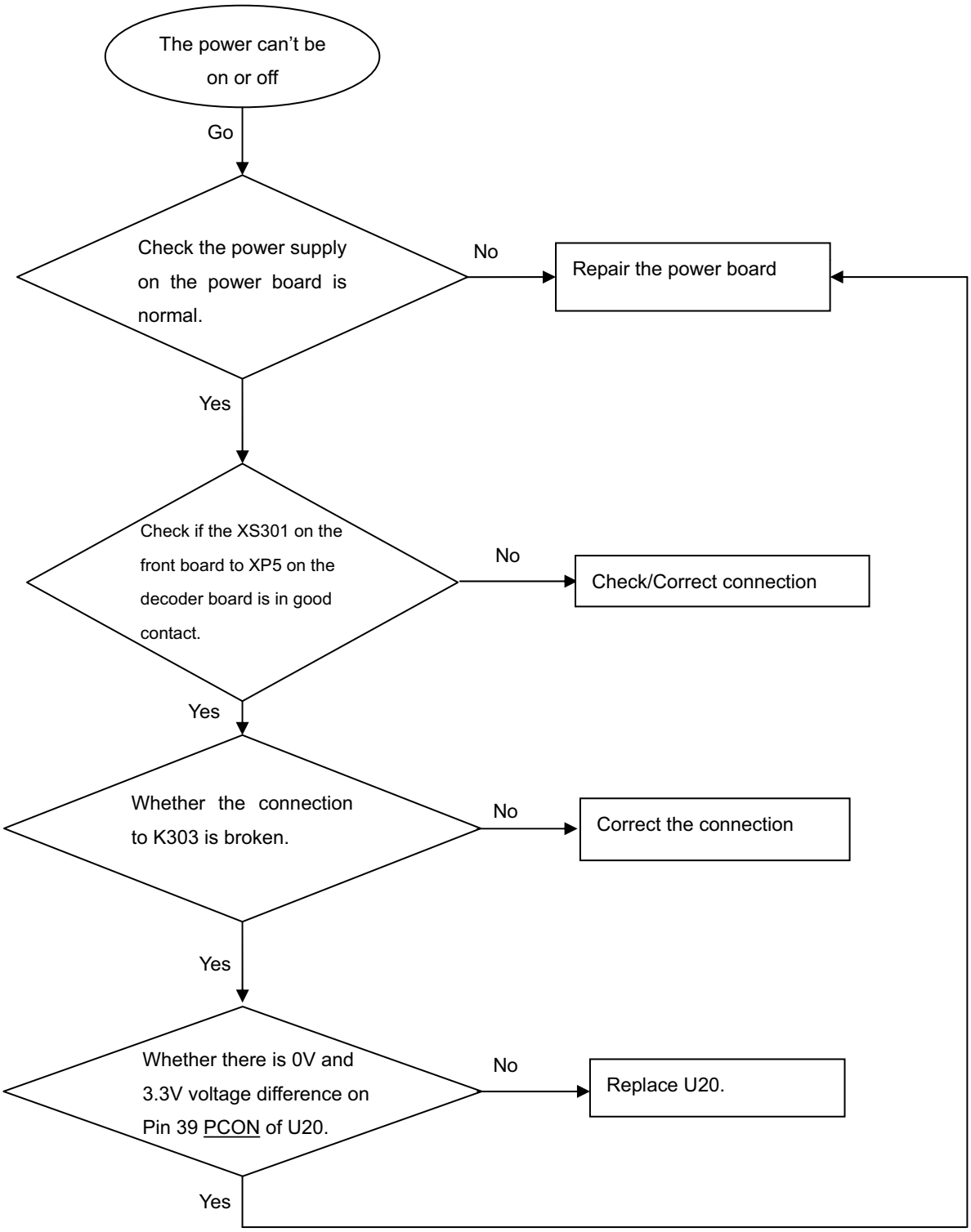
Spindle motor does not move


Motor no move
Go
Check the FFC connection between 24P and the loader.
No
Correct connection
Yes
Check whether "MO_VCC" (+5V) voltage is normal.
No
Check the MO_VCC power supply
Yes
Check whether laser voltage (1.9V for CD & 2.4V for DVD) on L9 and L10
No
Check/Replace Q5,Q6,Q7,Q8.
Yes
1.Whether voltage on pin 15of U20 varies between 0 and 3.3V (3.3V for CD and 0V for DVD),
2.Whether peripheral components are eroded or badly soldered.
No
Check/ Replace U20.
Yes
Check opu focus
No
1. Check U20 pin17 FOCUS_PWM signals
2.If there are F+, F-, T+ and T- signals output from U2.
Yes
Check/Replace the loader

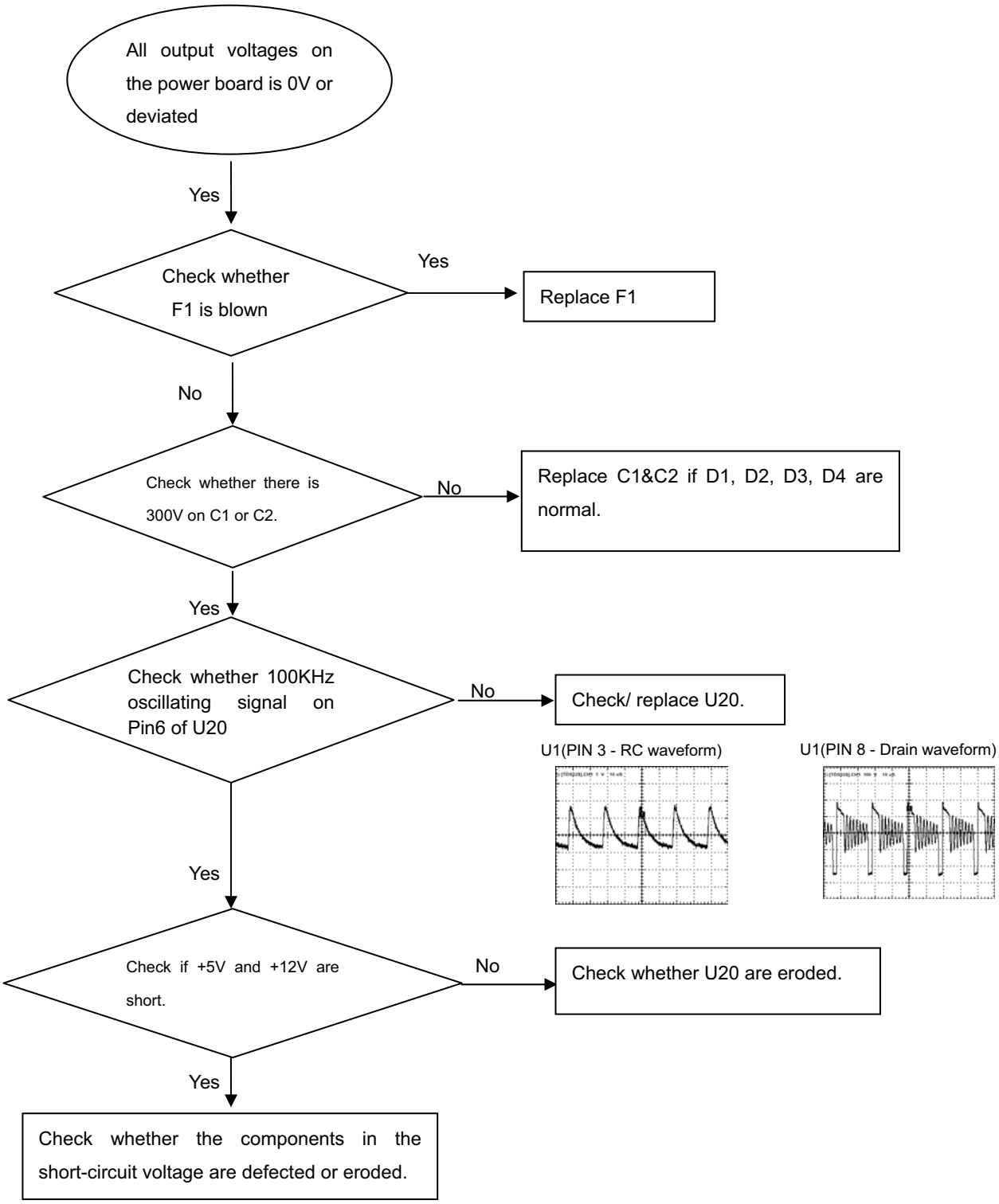
FOCUS_PWN waveform



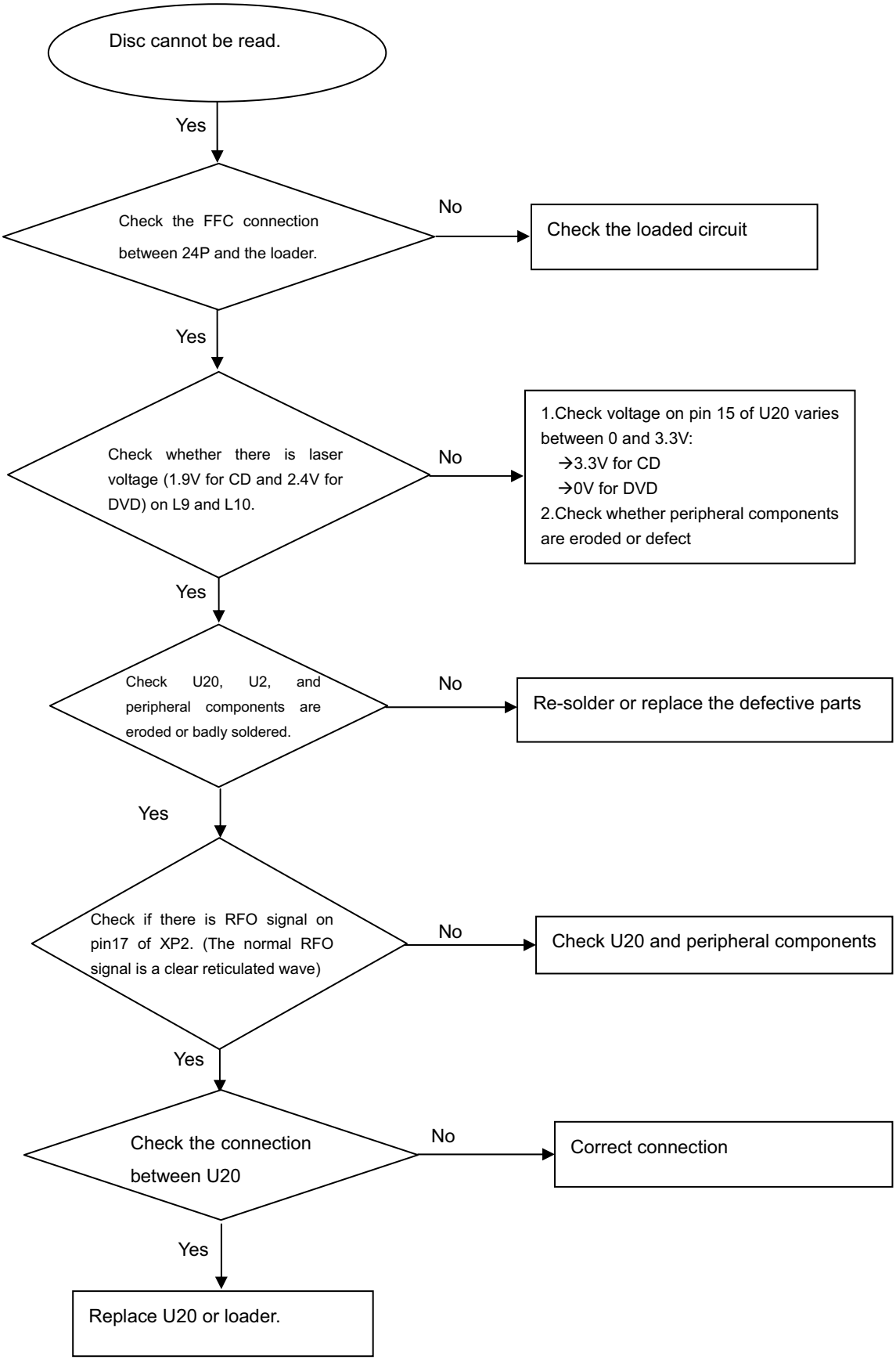
The power can not be on or off


The power can't be on or off
Go
Check the power supply on the power board is normal.
No
Repair the power board
Yes
Check if the XS301 on the front board to XP5 on the decoder board is in good contact.
No
Check/Correct connection
Yes
Whether the connection to K303 is broken.
No
Correct the connection
Yes
Whether there is 0V and 3.3V voltage difference on Pin 39 PCON of U20.
No
Replace U20.
Yes

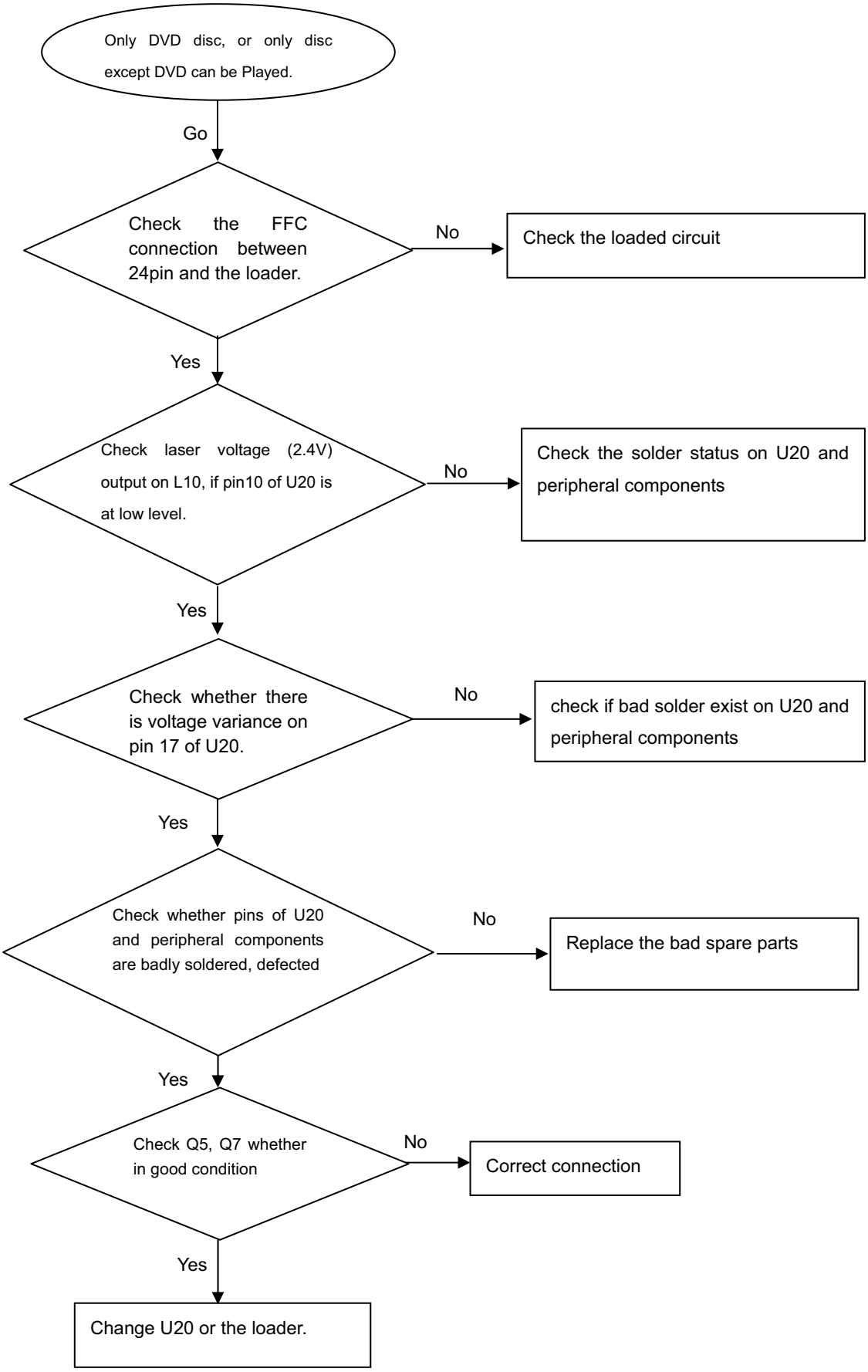
All output voltages on the power board is 0V or deviated.


All output voltages on the power board is 0V or deviated
Yes
Check whether F1 is blown
Yes
Replace F1
No
Check whether there is 300V on C1 or C2.
No
Replace C1&C2 if D1, D2, D3, D4 are normal.
Yes
Check whether 100KHz oscillating signal on Pin6 of U20
No
Check/ replace U20.
U1(PIN 3 - RC waveform)
U1(PIN 8 - Drain waveform)
Yes
Check if +5V and +12V are short.
No
Check whether U20 are eroded.
Yes
Check whether the components in the short-circuit voltage are defected or eroded.

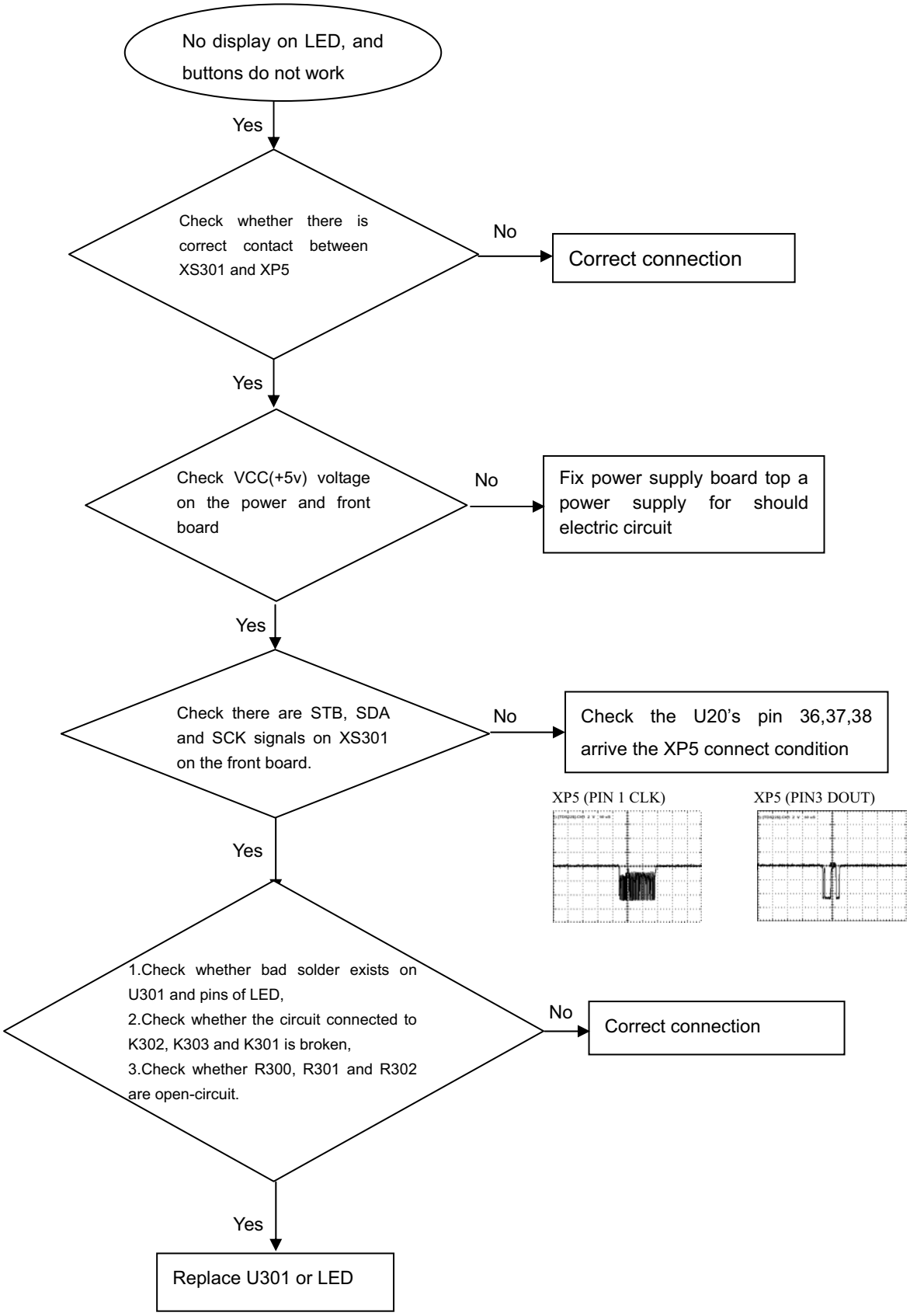
Disc cannot be read.


Disc cannot be read.
Yes
Check the FFC connection between 24P and the loader.
No
Check the loaded circuit
Yes
Check whether there is laser voltage (1.9V for CD and 2.4V for DVD) on L9 and L10.
No
1.Check voltage on pin 15 of U20 varies between 0 and 3.3V:
→3.3V for CD
→0V for DVD
2.Check whether peripheral components are eroded or defect
Yes
Check U20, U2, and peripheral components are eroded or badly soldered.
No
Re-solder or replace the defective parts
Yes
Check if there is RFO signal on pin17 of XP2. (The normal RFO signal is a clear reticulated wave)
No
Check U20 and peripheral components
Yes
Check the connection between U20
No
Correct connection
Yes
Replace U20 or loader.

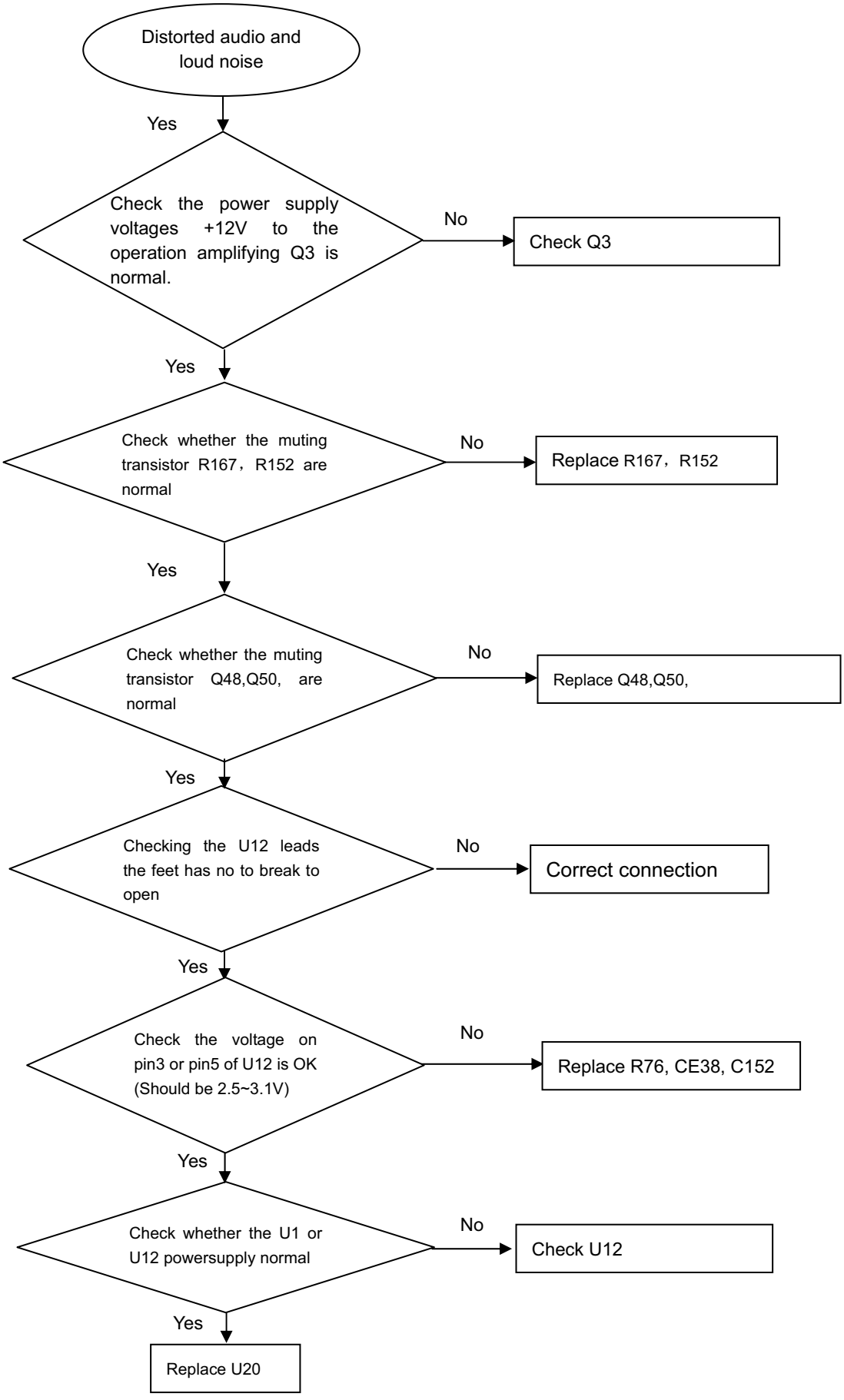
Only DVD disc or only disc except DVD can be played


Only DVD disc, or only disc except DVD can be Played.
Go
Check the FFC connection between 24pin and the loader.
No
Check the loaded circuit
Yes
Check laser voltage (2.4V) output on L10, if pin10 of U20 is at low level.
No
Check the solder status on U20 and peripheral components
Yes
Check whether there is voltage variance on pin 17 of U20.
No
check if bad solder exist on U20 and peripheral components
Yes
Check whether pins of U20 and peripheral components are badly soldered, defected
No
Replace the bad spare parts
Yes
Check Q5, Q7 whether in good condition
No
Correct connection
Yes
Change U20 or the loader.

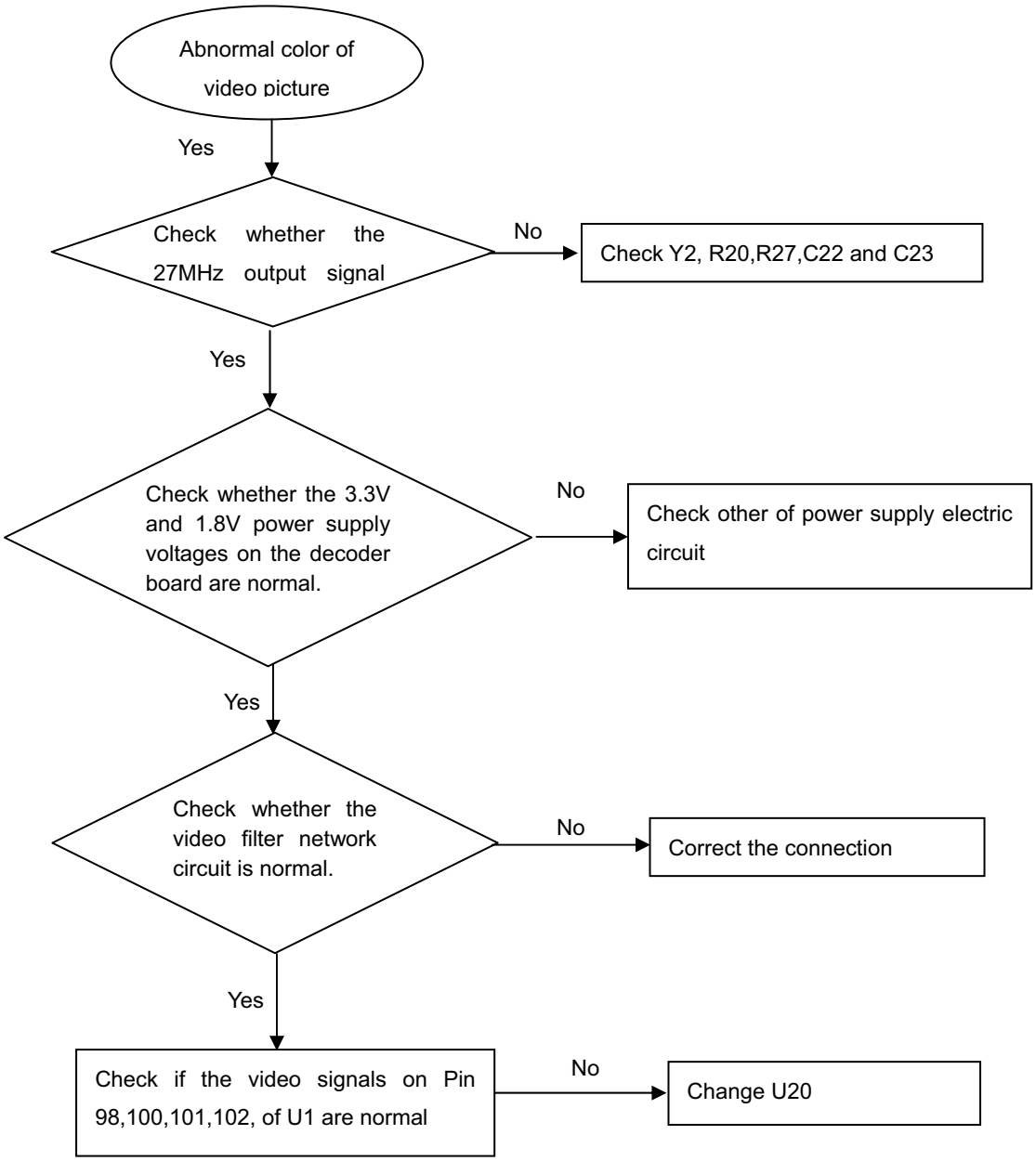
No display on LED, and buttons do not work


No display on LED, and buttons do not work
Yes
Check whether there is correct contact between XS301 and XP5
No
Correct connection
Yes
Check VCC(+5v) voltage on the power and front board
No
Fix power supply board top a power supply for should electric circuit
Yes
Check there are STB, SDA and SCK signals on XS301 on the front board.
No
Check the U20's pin 36,37,38 arrive the XP5 connect condition
XP5 (PIN 1 CLK)
XP5 (PIN3 DOUT)
Yes
1.Check whether bad solder exists on U301 and pins of LED,
2.Check whether the circuit connected to K302, K303 and K301 is broken,
3.Check whether R300, R301 and R302 are open-circuit.
No
Correct connection
Yes
Replace U301 or LED

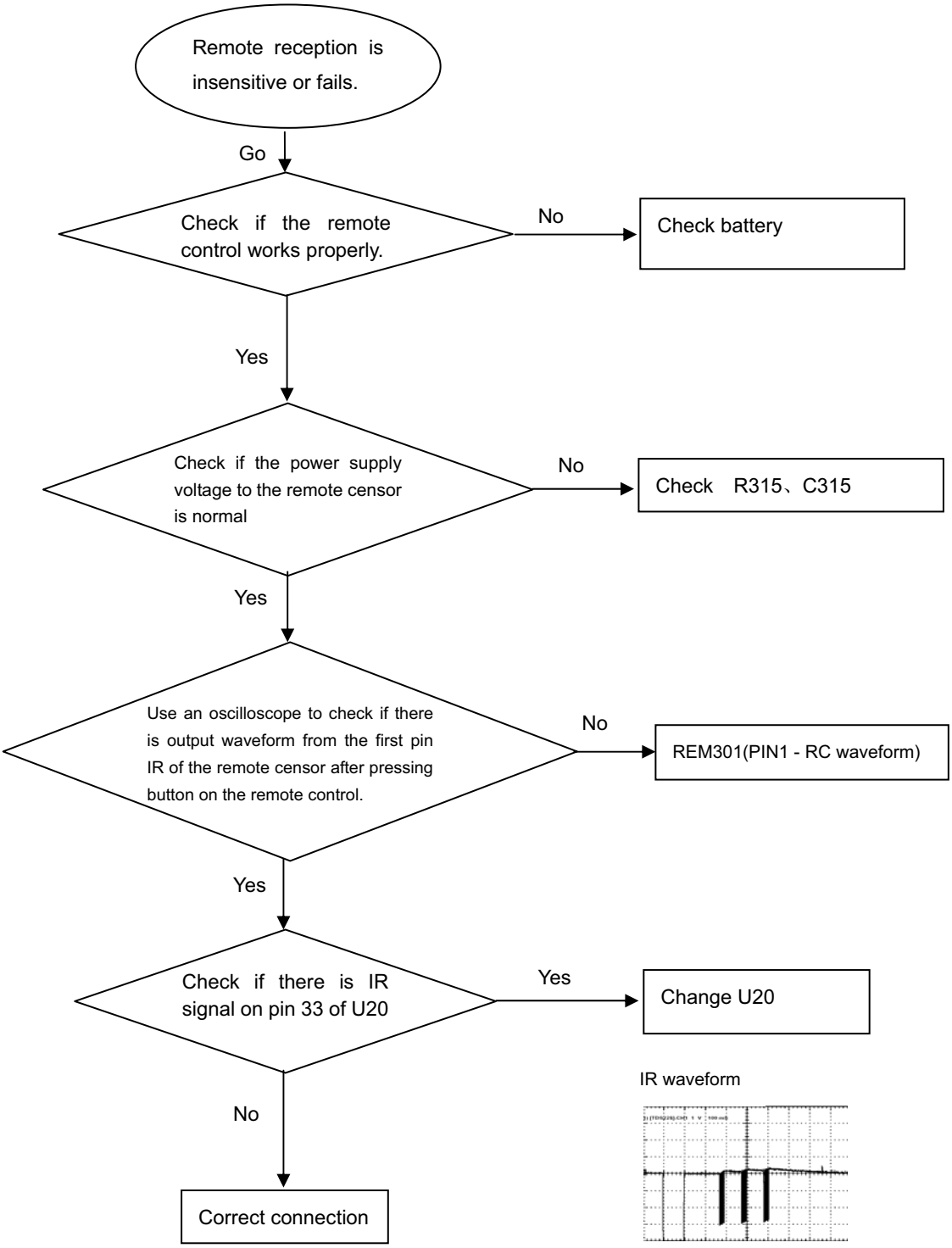
Distorted audio and loud noise



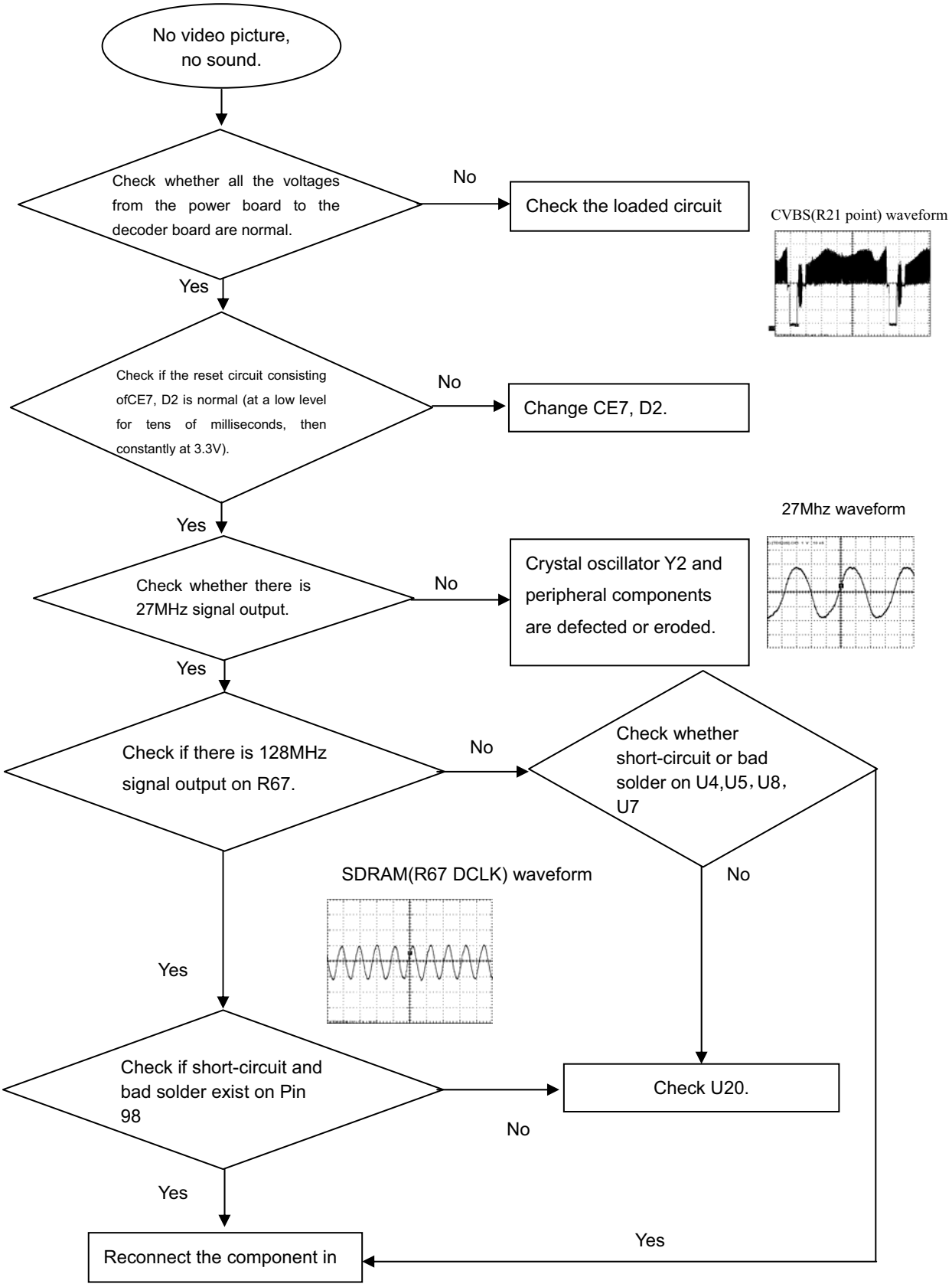
Abnormal color of video picture


Abnormal color of video picture
Yes
Check whether the 27MHz output signal
No
Check Y2, R20,R27,C22 and C23
Yes
Check whether the 3.3V and 1.8V power supply voltages on the decoder board are normal.
No
Check other of power supply electric circuit
Yes
Check whether the video filter network circuit is normal.
No
Correct the connection
Yes
Check if the video signals on Pin 98,100,101,102, of U1 are normal
No
Change U20

Remote reception is insensitive or fails.

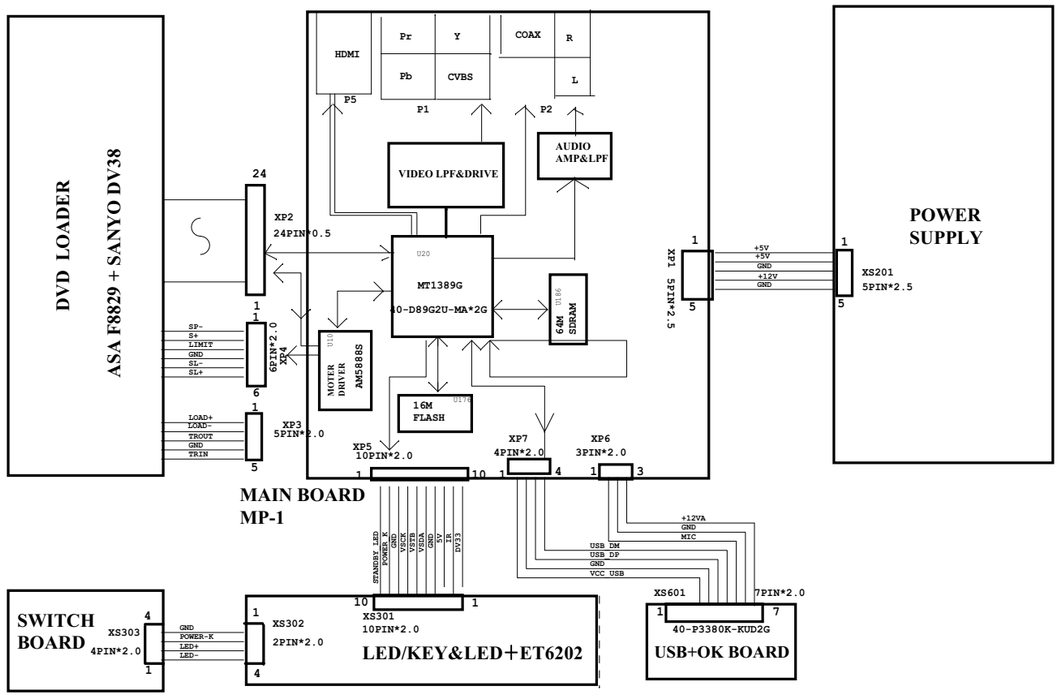

Remote reception is insensitive or fails.
Go
Check if the remote control works properly.
No
Check battery
Yes
Check if the power supply voltage to the remote censor is normal
No
Check R315、C315
Yes
Use an oscilloscope to check if there is output waveform from the first pin IR of the remote censor after pressing button on the remote control.
No
REM301(PIN1 - RC waveform)
Yes
Check if there is IR signal on pin 33 of U20
Yes
Change U20
No
Correct connection
IR waveform

No video picture, no sound.


No video picture, no sound.
Check whether all the voltages from the power board to the decoder board are normal.
No
Check the loaded circuit
CVBS(R21 point) waveform
Yes
Check if the reset circuit consisting ofCE7, D2 is normal (at a low level for tens of milliseconds, then constantly at 3.3V).
No
Change CE7, D2.
Yes
27Mhz waveform
Check whether there is 27MHz signal output.
No
Crystal oscillator Y2 and peripheral components are defected or eroded.
Yes
Check if there is 128MHz signal output on R67.
No
Check whether short-circuit or bad solder on U4,U5，U8，U7
SDRAM(R67 DCLK) waveform
No
Yes
Check if short-circuit and bad solder exist on Pin 98
Check U20.
No
Yes
Reconnect the component in
Yes

6-1

DVP3560K WIRING DIAGRAM



MT1389G 128 PIN GPIO LIST

NAME	PIN	FEATURES
TRAY_OPEN	14	VR_CD
TRAY_CLOSE	15	VR_DVD
FG / GPIO2	18	TRIN
UP1_6	28	HDM_SCL
UP1_7	29	HDMI_SDA
GPIO3	34	U_CEC
GPIO4	35	VSCK
GPO5	7	TRCLOSE
GPIO6	31	TxD
GPIO7	39	PCON STANDBY_LED
GPIO8	38	POWER_K
GPIO9	37	VSDA
GPIO10	81	HPD
GPIO11	30	RxD
GPIO12	80	SPDIF
GPIO13	36	VSTB
GPO14	96	AUDIO_MUTE
GPIO19	103	
GPIO20	104	AVCM
GPIO21	105	AKIN1
ARF	109	AUDIO_ARF
ARS	110	AUDIO_ARS
ALS	114	AUDIO_ALS
ALF	115	AUDIO_ALF
GPIO34	107	TROPEN LDSW
GPIO35	108	STBY
RFIN / OPOUT	120	LIMIT TROUT
VIDEO/YUV	98	V_CVBS
	102	V_R/V
	101	V_B/U
	100	V_G/Y
AR	111	AR
AL	113	AL

7-1

Front Board Circuit Diagram:

FROM MAIN BOARD

XS301
CON10(2.0)
for dvp352x
U5V
VCC
DATA
CS
CLK
POWER_K
STB_LED
R320 0R IR

REM301
REM
VCC
GND
IR
R315 100 ohm
R318 100R/NC
C315 47p
C306 0.1u
CE301 47uF

XS302
CON4(2.0)
LED+
LED-
POWER_K1
POWER_K
U5V STB_LED
C316 100p
C307 100p
C308 100p

R319 0 ohm
5VL
R303 R304 R305 4K7
DATA
CLK
CS
R300 R301 R302 100
C300 C301 C302 100P
C303 0.1u
CE300 47uF

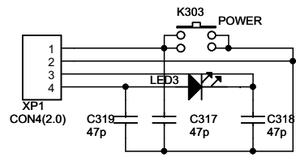
R306 51K
U301
ET6202
OSC
DI/O
CLK
STB
KEY1
KEY2
VDD
SEG1/KS1
SEG2/KS2
SEG3/KS3
SEG4/KS4
SEG5/KS5
SEG6/KS6
SEG7/KS7
GND
GRID1
GRID2
GND
GRID3
GRID4
GND
VDD
SEG14/GRID5
SEG13/GRID6
SEG12/GRID7
SEG10/KS10
SEG9/KS9
SEG8/KS8
R307 10K
R308 10K
R309 1K
R310 1K
SEG[1:6]
GRID[1:7]
LED-
R317 33R
LED+
R316 33R
LED1
JDD350501AG

K301 open/close
K302 play/pause
1N4148 D301 R312 1K
1N4148 D302 R311 1K KS2 POWER_K
KEY1
KEY2
R313 0R POWER_K1
R314 0R/NC
C304 100p
C305 100p

	R311	R313	R314
0.3W	N	N	Y
1W	Y	Y	N

7-2

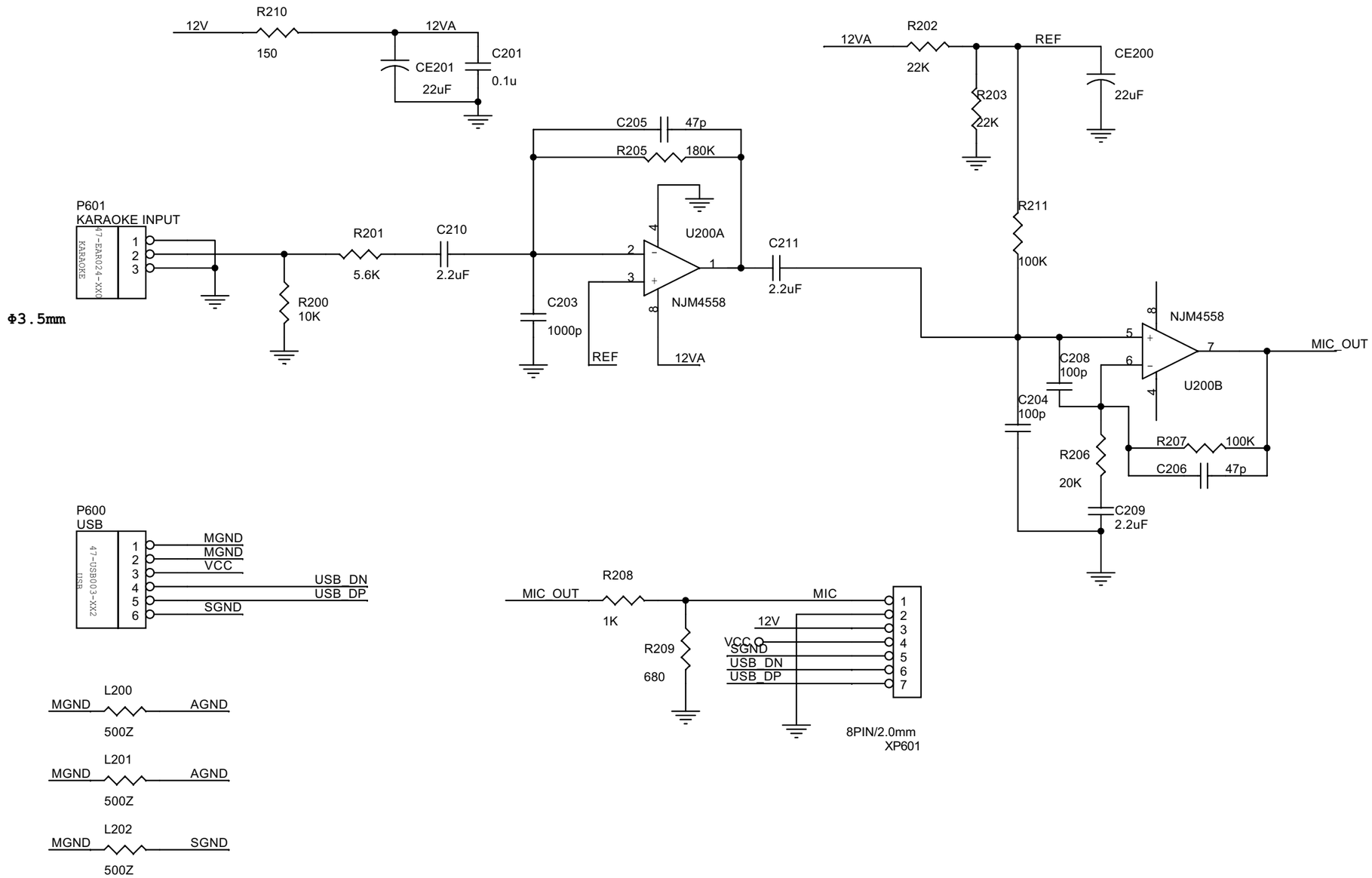
Switch Board Circuit Diagram:



SWITCH BOARD

7-3

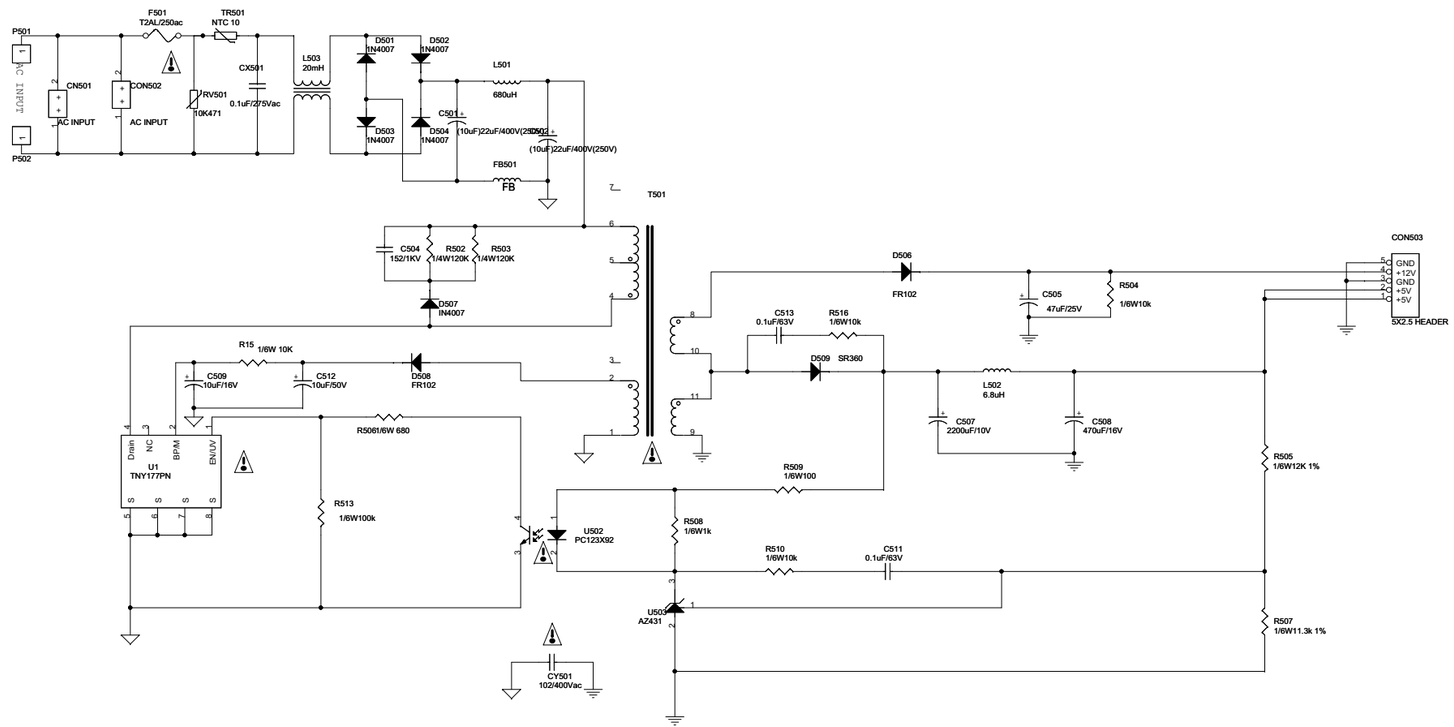
OK Board & USB Board Electric Diagram



7-4

Power Board Circuit Diagram:

*** CAUTION :**
THE PARTS MARKED WITH ⚠ ARE IMPORTANT PARTS ON THE SAFETY.
PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBER WITHOUT FAIL.



* No use the Class 1 environment management materials of SS-00259
* All of moulding resinous, ink, paint and coating electric wire must be ordered from designated GP supplier of SONY

7-5

Main Board Circuit Diagram: POWER SUPPLY

TO POWER BOARD

XP1
5pin/2.5mm
+5VD
+5VP
GND
+P12V

+12V: +12V(+-10%)

+5V: +5V(+-2.5%)

960mA
L1 FB AXIAL
C1 0.1uF
C112 0.1uF
MO_VCC
R10 NC/0
Q10 SS8550
VCC
C77 1uF
C109 0.1uF
C111 0.1uF
R58 2.2K
Q3 SS8550
+12V
100mA
C12 0.1uF
R13 22K
R14 1.3K
R12 4.7K
USBPC
DV33
R22 4.7K
PCON
R29 1K
Q2 BT3904
R33 4.7K

DV33
R113 4.7K
R120 4.7K/NC
R115 4.7K/NC
R118 4.7K/NC
VCC
DV33
TO FRONT PANEL
10PIN/2.0mm_XP5
IR R50 100
VSDA R51 100
VSTB R52 100
VSCK R53 100
POWER_K R99 1K
STANDBY_LED R109 1K
PCON STANDBY_LED
C44 NC(47pF)
C45 NC(47pF)
C42 NC(47pF)
C43 100pF
C81 100pF
C82 100pF
C46 NC(100pF)
C25 NC(0.1UF)

DV33
R8 0/FB500
RFV33
CE23 47uF/6.3V
C73 0.1uF
FB1 500
89M_3V3
CE24 47uF/6.3V
C75 0.1uF
FB6 500
SD33
CE6 100uF/16V
C76 0.1uF
AADVDD
R6 4.7/0603
AADVDD
AUDIO ADC
C4 0.1uF
CE5 47uF/16V

MO_VCC
810mA
D30 RL207
370mA
R40 4.3R/2W
440mA
R48 1R/1W
3 TR_B2
Q17 SS8550
V12
3 TR_B1
Q16 SS8550
DV33
R97 0R/5.1K 1%
CE4 220uF/16V
C108 0.1uF
REGO2 3
R95 20K 1%
CE3 220uF/16V
3 REGO1
R98 NC/10K 1%
C107 0.1uF
R96 12K 1%

RESET Circuit

DV33
URST#
R15 15K
R18 3.3K
R19 22K
1N4148/NC
D2
R26 1K
URST#
R17 3.3K
Q21 2N3904
Q22 2N3904
CE7 22uF/16V CEL5-5
C21 1uF
R16 4.7K

OFF-PAGE CONNECTION

URST#	URST#	(3,4)
MO_VCC	MO_VCC	(2,3,6)
SD33	SD33	4
VCC	VCC	(2,3,6,7)
DV33	DV33	(2,3,4,7)
RFV33	RFV33	3
89M_3V3	89M_3V3	3
V12	V12	(3)
VSCK	VSCK	3
VSDA	VSDA	3
VSTB	VSTB	3
IR	IR	3
PCON	PCON	3
AADVDD	AADVDD	3
POWER_K	POWER_K	3
USBPC	USBPC	3

7-6

Main Board Circuit Diagram: MT1389G

SERVO RF DeCAP.

RF Reference

SONY 313

Very Important to reduce Noise

MT1389G
LQFP 128
V1.0

Crystal

Put these circuits as closer as possible to MT1389

OFF-PAGE CONNECTION

DRAM I/F

S-FLASH

VIDEO I/F

AUDIO I/F

TMDS I/F

Power

Front

RS-232

Default

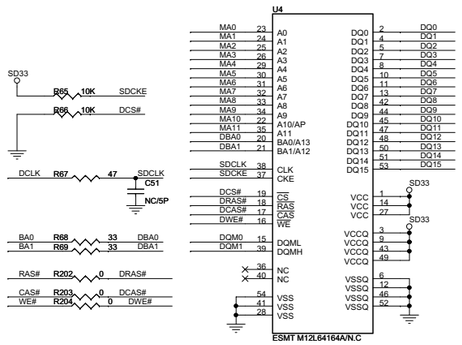
Chip Decap.

MotorDriver

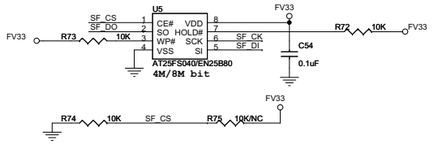
7-7

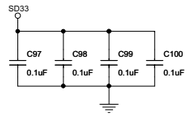
Main Board Circuit Diagram: SDRAM & FLASH

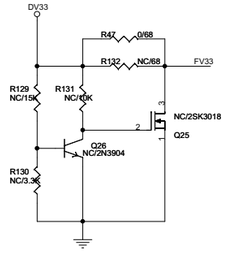
SDR_DRAM (Dual Layout)



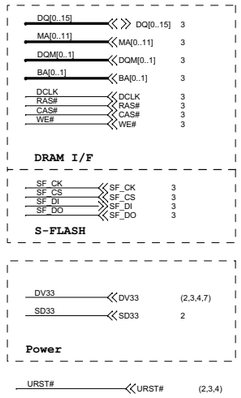
SerialFlash







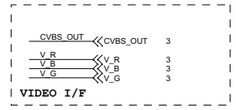
OFF-PAGE CONNECTION



7-8

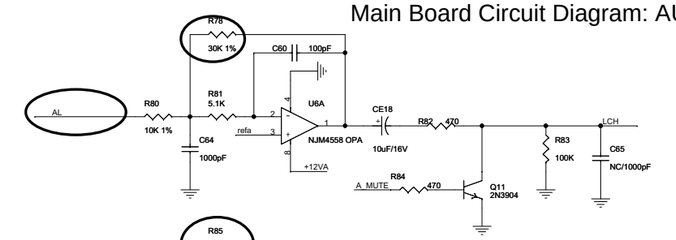
Main Board Circuit Diagram: VIDEO OUT & AV-CONNECTOR

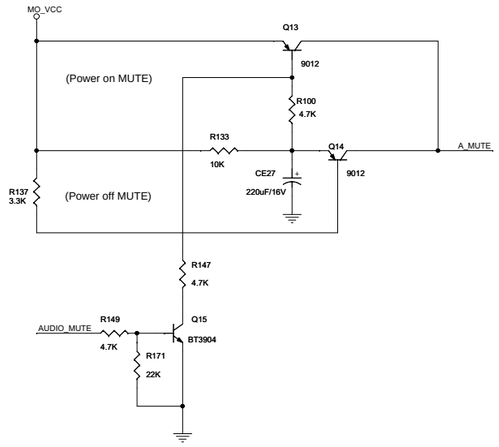
OFF-PAGE CONNECTION

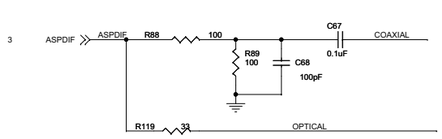


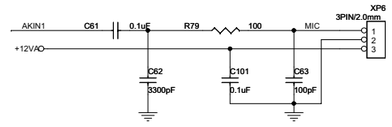
7-9

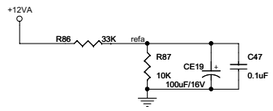
Main Board Circuit Diagram: AUDIO OUTPUT

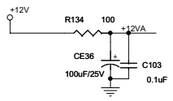


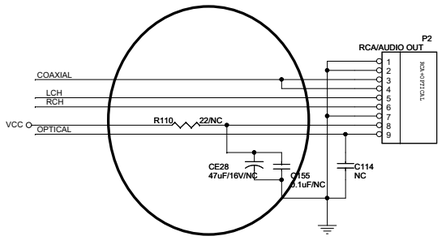




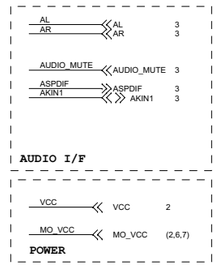






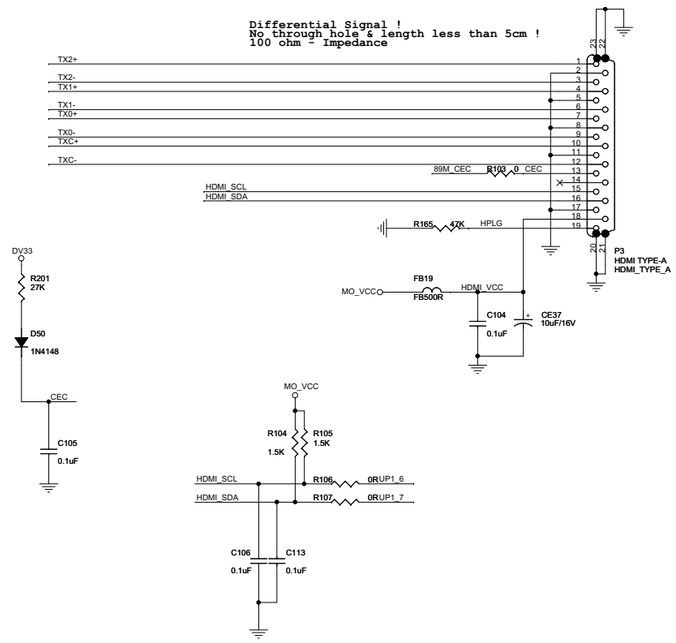


OFF-PAGE CONNECTION

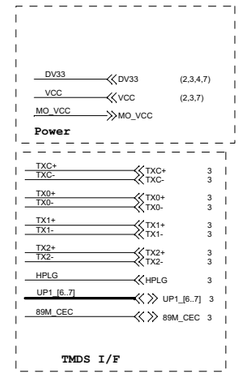


7-10

Main Board Circuit Diagram: HDMI I/F

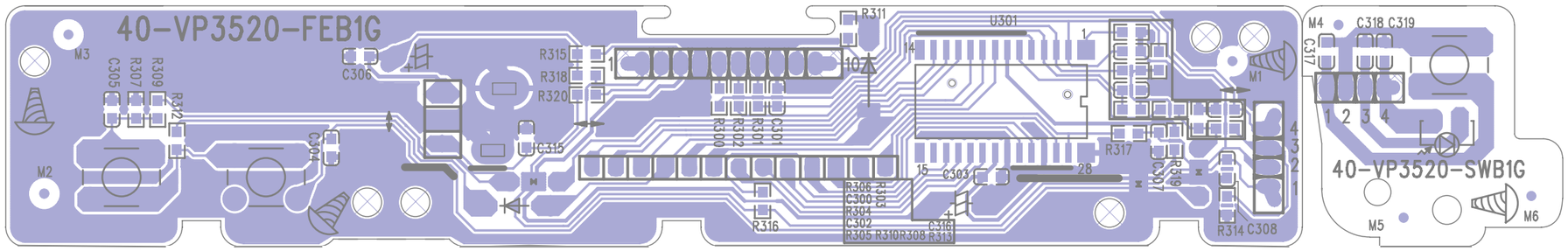


OFF-PAGE CONNECTION



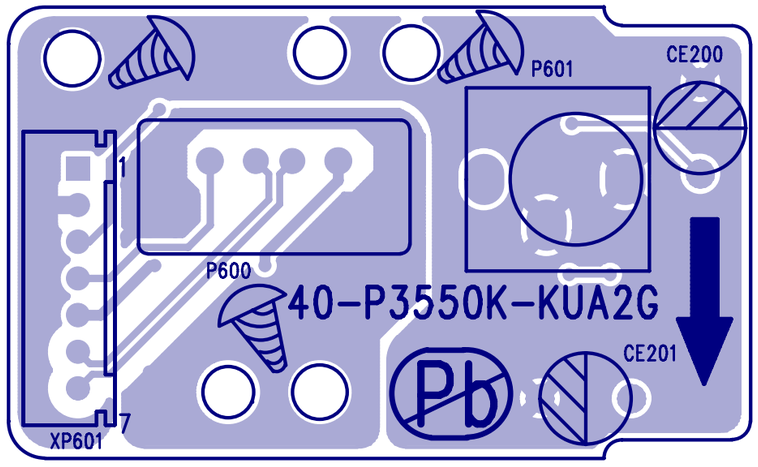
7-11

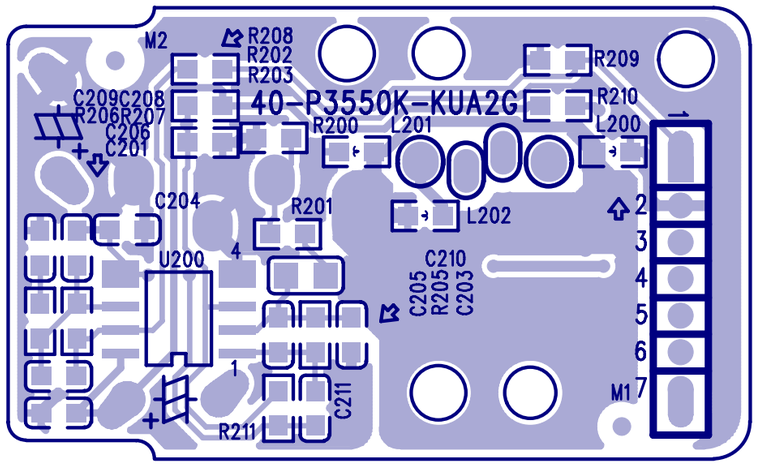
Front Board & Switch Board Print-layout (Bottom side):



7-12

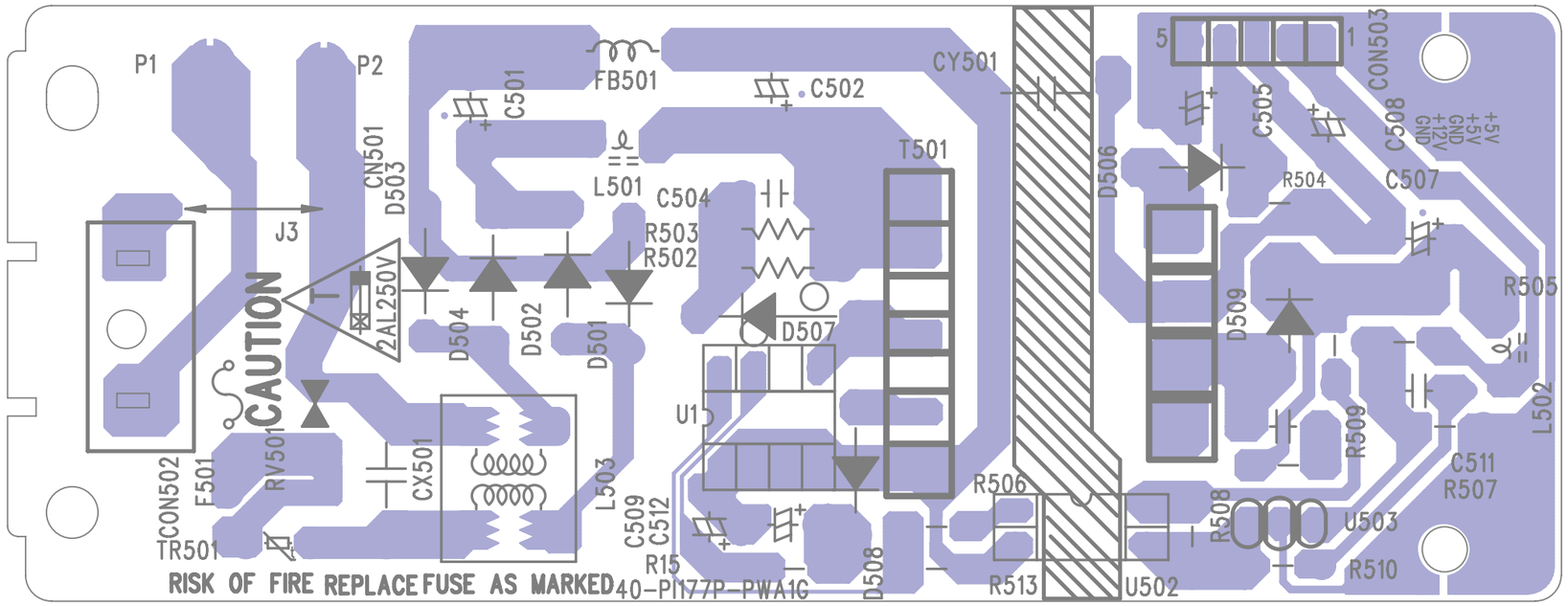
OK Board and USB Board Print-layout (Top and Bottom side):





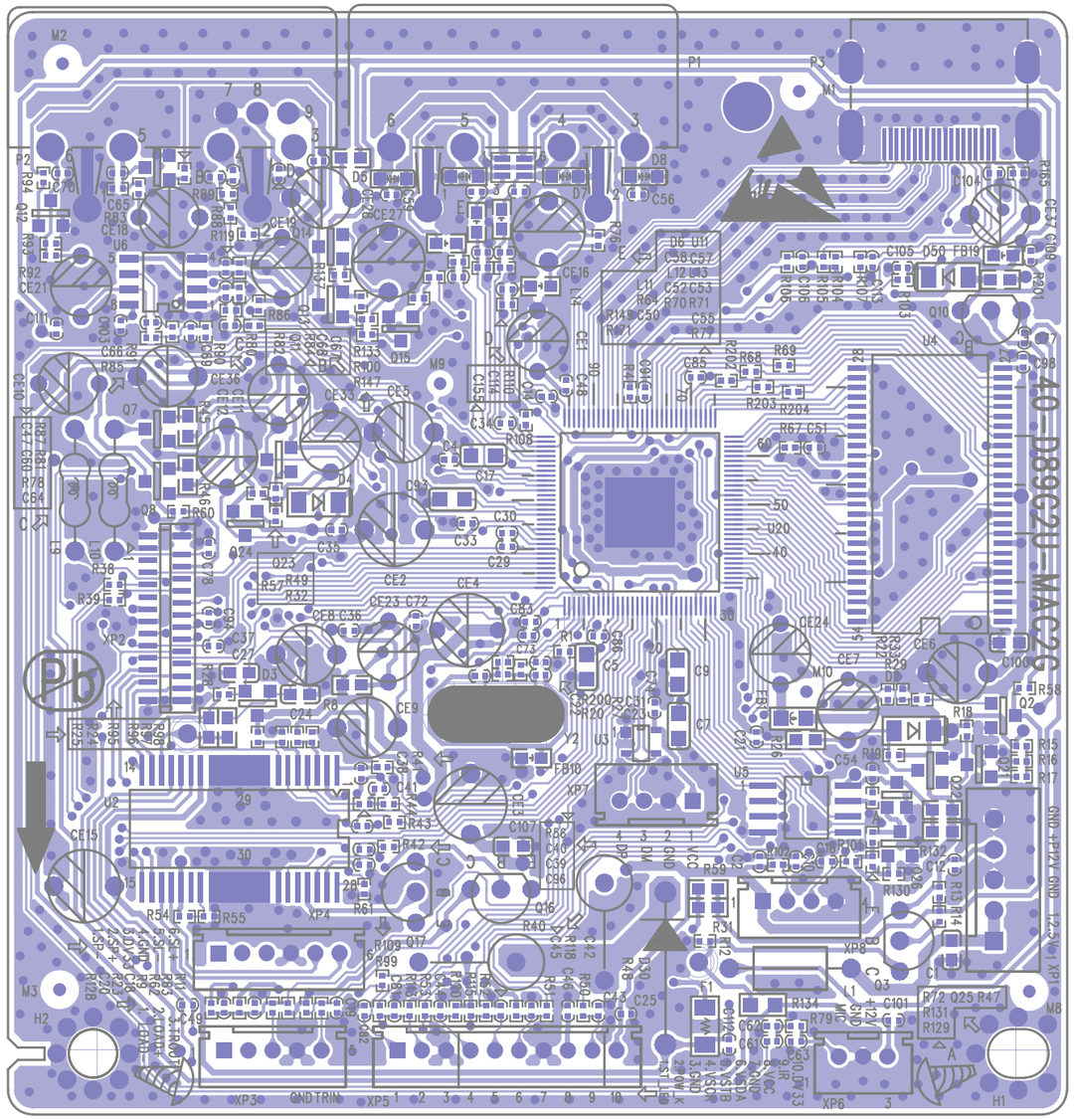
7-13

Power Board Print-layout (Bottom side):



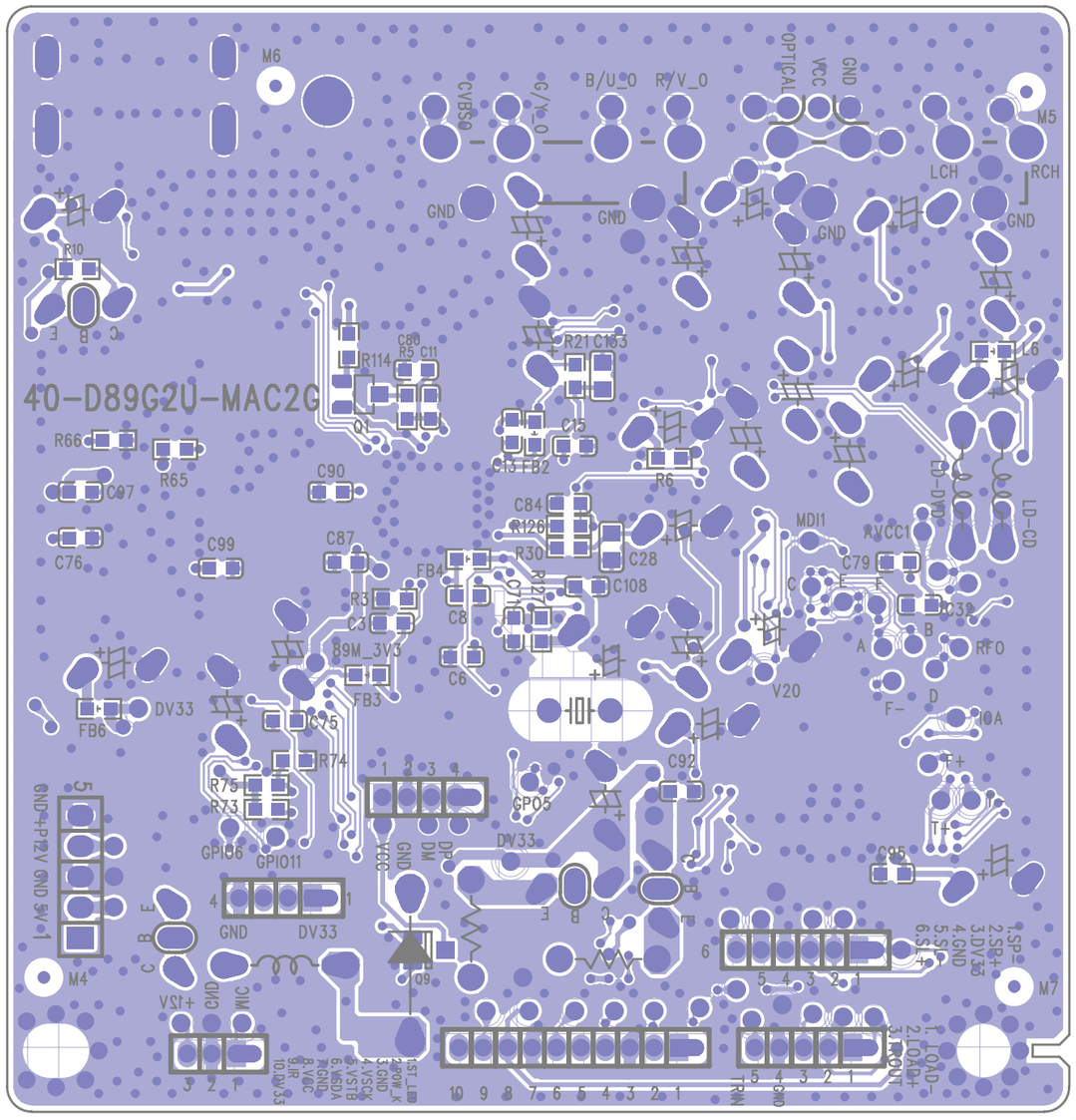
7-14

Main Board Print-layout (Top side):

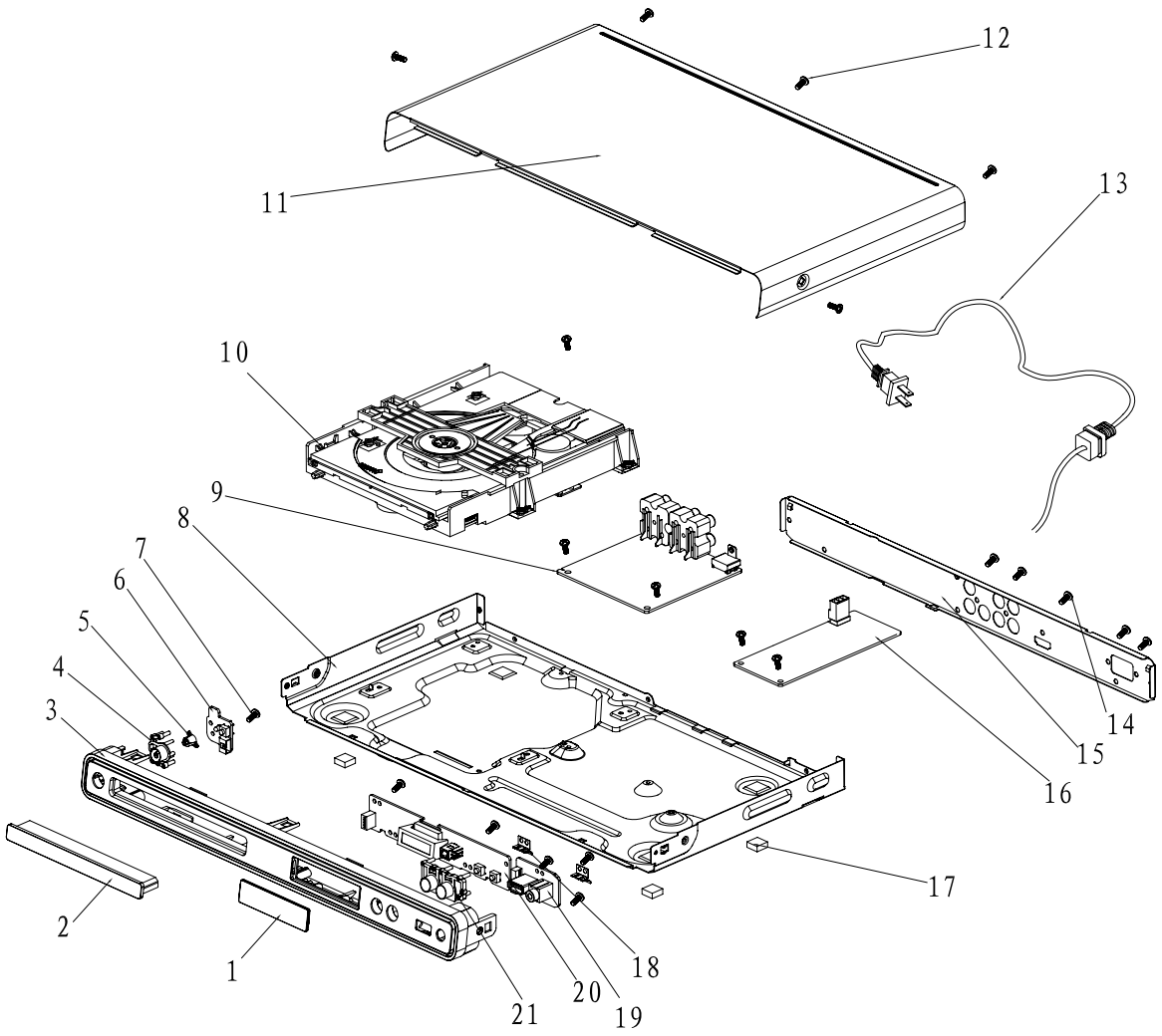


7-15

Main Board Print-layout (Bottom side):



Exploded view for DVP3560K/55:



It is a general mechanical exploded view for DVP3560K/55, pls refer to the model set for detailed information.
ASSY1 includes components:1.3.4.5.21

DVP3560K/55 SERVICE PARTLIST

ELECTRICAL PARTLIST

No	12NC No.	Description	Q'ty
9	**996510031366**	**ASSY-MAIN BOARD**	**1**
⚠ **16**	**996510031358**	**ASSY-POWER BOARD**	**1**
19	**996510020951**	**ASSY-KU BD**	**1**
6	**996510031364**	**ASSY-SWITCH BOARD**	**1**
20	**996510031359**	**ASSY-FRONT CONTROL BOARD**	**1**
10	**996510031298**	**ASSY-LOADER**	**1**
OPU	996510031294	SANYO DV38	1

ASSY-MAIN BD COMPONENT PARTLIST

NO	12NC NO.	Description	Q'ty
D3	996510009668	BAT54C	1
D4	996510014439	SMD. SWITCHING DIODE LL4148	1
D5	996510020926	IC PESD5V0S1BA	1
D50	996510014439	SMD. SWITCHING DIODE LL4148	1
D6	996510020926	IC PESD5V0S1BA	1
D7	996510020926	IC PESD5V0S1BA	1
D8	996510020926	IC PESD5V0S1BA	1
L10	996500014082	COIL CHOKE 10UH +/-10%	1
L9	996500014082	COIL CHOKE 10UH +/-10%	1
Q1	996510010922	ASM3402M/TR-LF SOT-23	1
Q10	996510009671	PNP TRANSISTOR	1
Q11	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q12	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q13	996510009670	TRANSISTOR SMT 3CG9012M	1
Q14	996510009670	TRANSISTOR SMT 3CG9012M	1
Q15	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q16	996510009671	PNP TRANSISTOR	1
Q17	996510009671	PNP TRANSISTOR	1
Q2	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q21	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q22	996510009669	SMD.TRANSISTOR MMBT3904LT1 NPN	1
Q23	996510009670	TRANSISTOR SMT 3CG9012M	1
Q24	996510009670	TRANSISTOR SMT 3CG9012M	1
Q3	996510009671	PNP TRANSISTOR	1
Q7	996510009937	TRANSISTOR S8550LT1(PNP)	1
Q8	996510009937	TRANSISTOR S8550LT1(PNP)	1
Q9	996510022279	PNP TRANSISTOR SOT-23PBSS5320T	1
U2	996510009674	IC AM5888IC	1
U20	996510031368	IC 1389DX DECODE	1
U3	996510013349	HDMI USB ESD PYOTECTION IC	1
U4	996510009863	64M SDRAM TSOP54 M12L64164A-7T	1
U5	996510031293	16M FLASH 86MHZ MX25L1605DM2	1
U6	996510010924	Dual operational amplifier	1
Y2	996510009675	27MCL20PF	1

ASSY-POWER BD COMPONENT PARTLIST

NO	12NC NO.	Description	Q'ty
D501	996510011047	DIODE IN4007	1
D502	996510011047	DIODE IN4007	1
D503	996510011047	DIODE IN4007	1
D504	996510011047	DIODE IN4007	1
D506	996500014043	DIODE FR102 (FAST RECOVERY)	1
D507	996510011047	DIODE IN4007	1
D508	996500014043	DIODE FR102 (FAST RECOVERY)	1
D509	996500027866	DIODE SR360 3A/60V	1
L501	996510009942	COIL WIDTH	1
L502	996500032509	COIL SL0811-6R8K2R4	1
⚠ T501	996510031291	TRANSFORMER EE-19\\BCK-03EE19	1
U1	996510012685	IC TNY177PN	1
U502	996500027867	PHOTOCOUPLER PS2561L1-1-V(WF)	1
U503	996510010419	REG DE PRECISAO AJUSTAVEL	1

ASSY-KU BD COMPONENT PARTLIST

NO	12NC NO.	Description	Q'ty
U200	996500032494	IC AS4558M	1

ASSY-FRONT CONTROL BD COMPONENT PARTLIST

NO	12NC NO.	Description	Q'ty
LED1	996510020917	J2808AG	1
REM301	996510020925	HM338-12 RECEIVER MOD H=12MM	1
U301	996510009665	IC ET6202 SOP-2	1

MECHANICAL PARTLIST

No	12NC No.	Description	Q'ty
11	996510027798	BOTTOM PLATE	1
⚠ 13	996510001175	POWER CORD	1
15	996510031361	BACK PANEL	1
17	996510006463	PAD	4
2	996510031362	FRONT DOOR	1
8	996510031367	TOP CABINET	1
AVCABLE	996510001106	VIDEO CABLE 1500mm	1
Assy1	996510031363	ASSY-FRONT DOOR	1
CON503	996510011060	5PINCBLE TJC3-5Y/SCN-5P L=70MM	1
HDMIL	996510031365	HDMI CABLE 1.5M	1
PSOCKET	996510020885	POWER SOCKET transition	1
RC	996510031299	REMOTE CONTROL	1
XP2	996510001168	24PIN HS	1
XP3	996510004063	CABLE PH-5Y/PH-5Y L=130MM	1
XP4	996510021448	6PIN HS	1
XP601	996510020962	7PIN CABLE WITH SHIELD(XP7:	1
XS301	996510001530	CABLE 10P HS	1

SCREWS LIST:

No	12NC No.	Description	Q'ty
7	—	S/T SCREW B 2.6 X 8 BF	6
12	—	S/T SCREW B3 X 6 BF	9
14	—	S/T SCREW B 3 X 7 BF	5

REVISION LIST

Version 1.0

* Initial release for DVP3560K/55